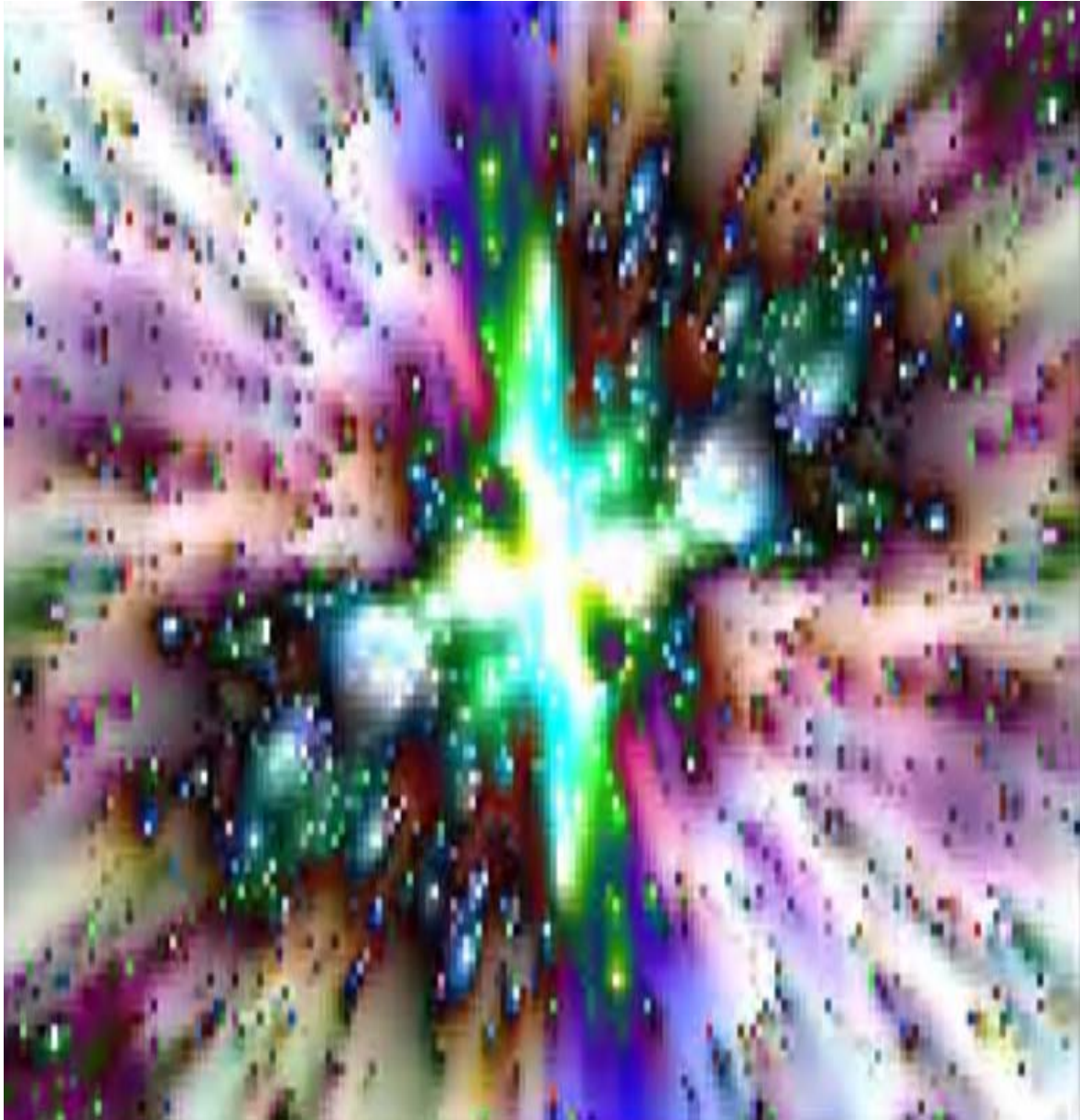


0 N A D
fL E R E I T I N S M A F R A N A C E

= quantum cyberart =
{the world of micro-infinity}



2007

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= qUantumCyberRt =
{the world of micro-infinity}

Author's imagination of how would look the physical micro-universe

using composed, found, changed, modified, alternated, or computer-programmed art works

2007

The experimental digital arts on the front and back covers represent the “Quantum Statistics” [equilibrium distribution of elementary particles among the quantized energy states] and respectively a “Flow of Elementary Particles” done by the cyber-artist.

This experimental digital album can be ordered in a paper bound reprint from:

*Books on Demand
ProQuest Information & Learning
(University of Microfilm International)
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P.O. Box 1346, Ann Arbor
MI 48106-1346, USA
Tel.: 1-800-521-0600 (Customer Service)
<http://wwwlib.umi.com/bod/basic>*

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Electronic Art (forward)

The artist does not illustrate science (but)
he frequently responds to the same interests
that a scientist does (Lewis Mumford).

Art est celare artem (Lat.), which means that art conceals art.

And Horace in his “Ars Poetica” declaimed that a wonderful
art provides you pleasure even after looking at it ten times!
[*deciens repetita placebit* (Lat.)].

The art of a people is a true mirror of their
minds (Jawaharlal Nehru).

Art is a form of catharsis (Dorothy Parker).
According to Aristotle catharsis is a form of purification.
It is also a form of emotional discharge.

These images are part of a series of about 100 cyberart creations representing the
unimaginable little world of physics particles, anti-particles, un-particles that compose the
matter, anti-matter, and un-matter.

They are done with Adobe Photoshop CS2, just by playing with various
parameters.

For example:

- Using Filter, and then Distort or Pixelate or Sharpen or Stylize etc.
- Or Layer, New Layer Filter, and Gradient.
- Or Layer, Change Layer Content, Curves and here I play/change the graph of the curve.
- Or Image, Pixel Aspect Ratio, Custom Pixel Aspect Ratio.

Mostly I used Filter, then all kind of combinations between a submenu of Filter (such as
Artistic, Blur, Distort, Brush, Noise, etc.), and then another parameter of each
corresponding submenu (for example for Artistic one has: Colored Pencil, Cutout, Dry
Brush, etc.)

and according to my eye/taste I see which one looks better.

For making an album online, I insert the pictures into an MS WORD 2003 file,
and then I convert it to a PDF format with my Adobe Writer/Distiller 7.0.

By the way, I confess that I don't have much talent in traditionally making oil
painting or hand drawing, yet I am attracted to electronically designing **computer art**. I
even thought at constructing mathematical algorithms to be implemented by computer
programs in order to paint and write (electronic) poetry, prose, and dramas.

The Cyber-Author

QUANTUM

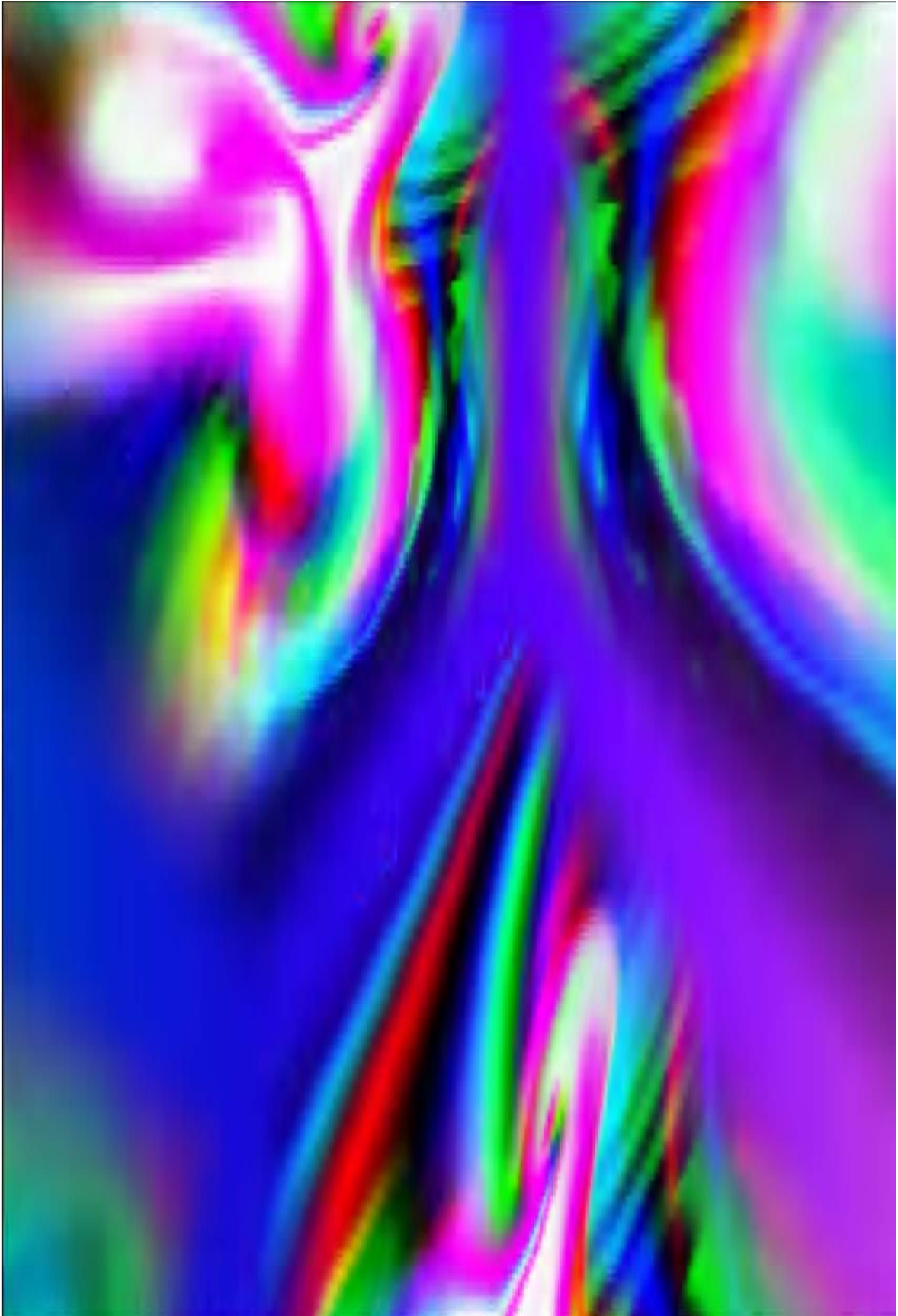
Quantum is called the smallest amount of energy that a system can lose or gain.

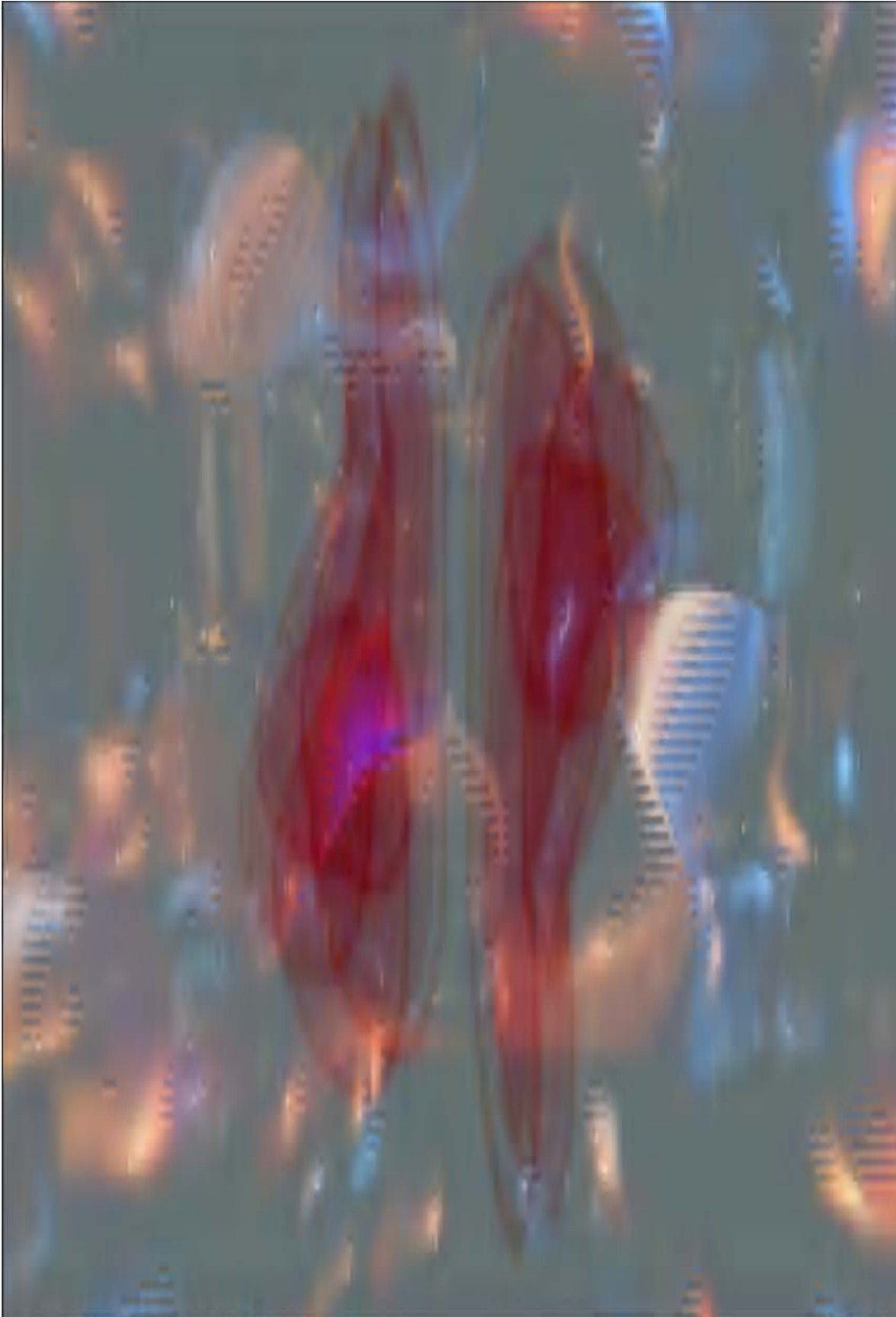






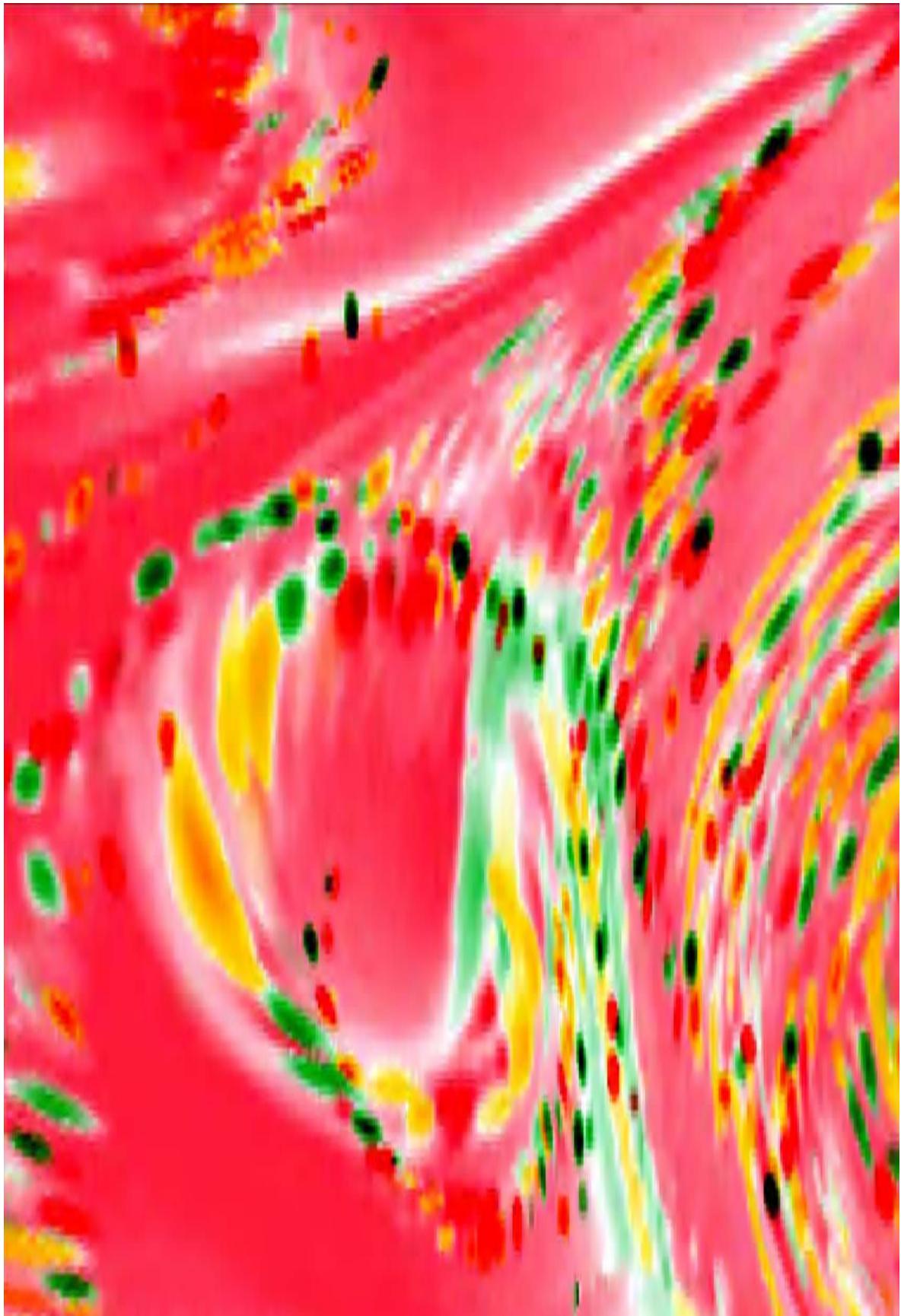


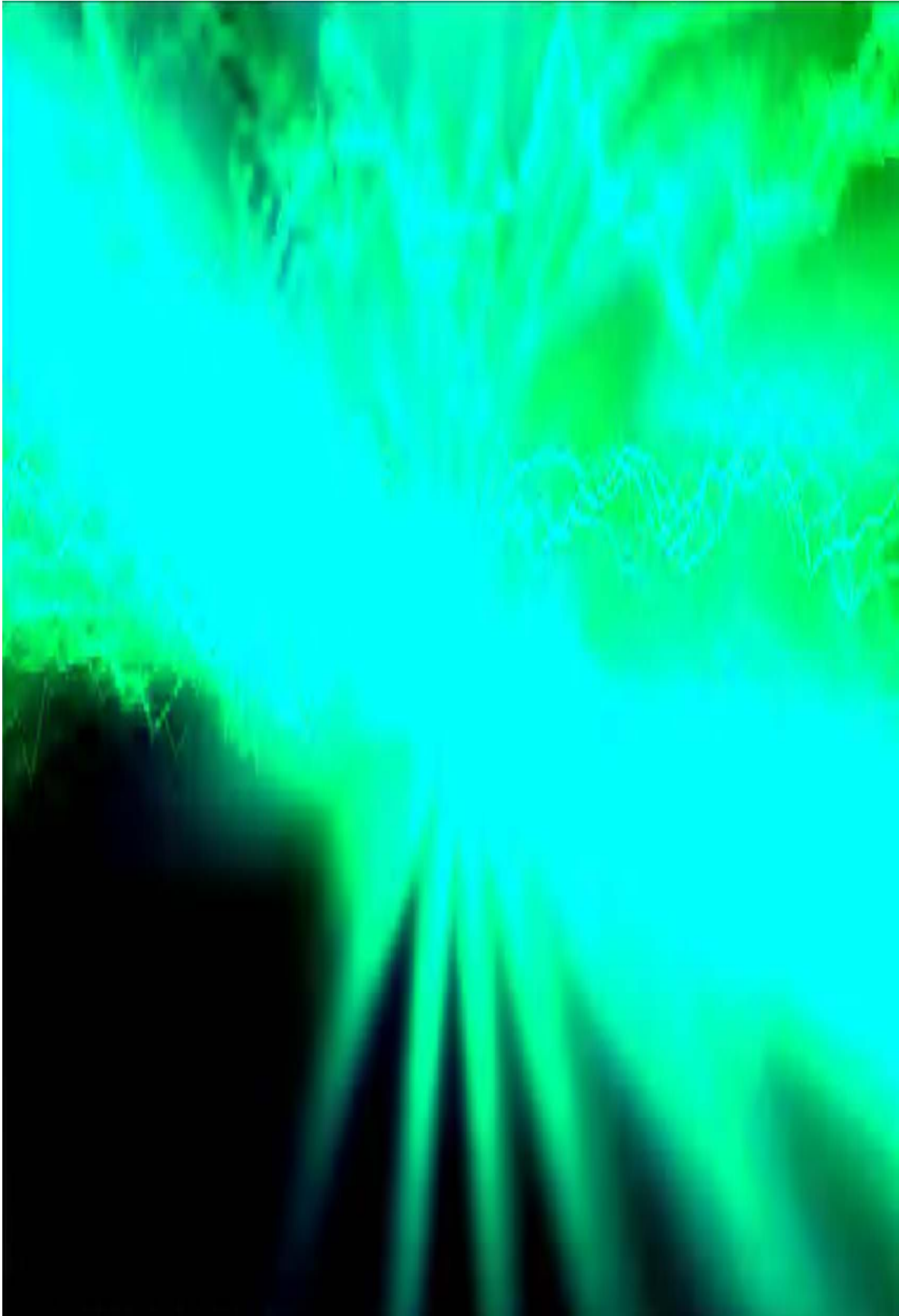


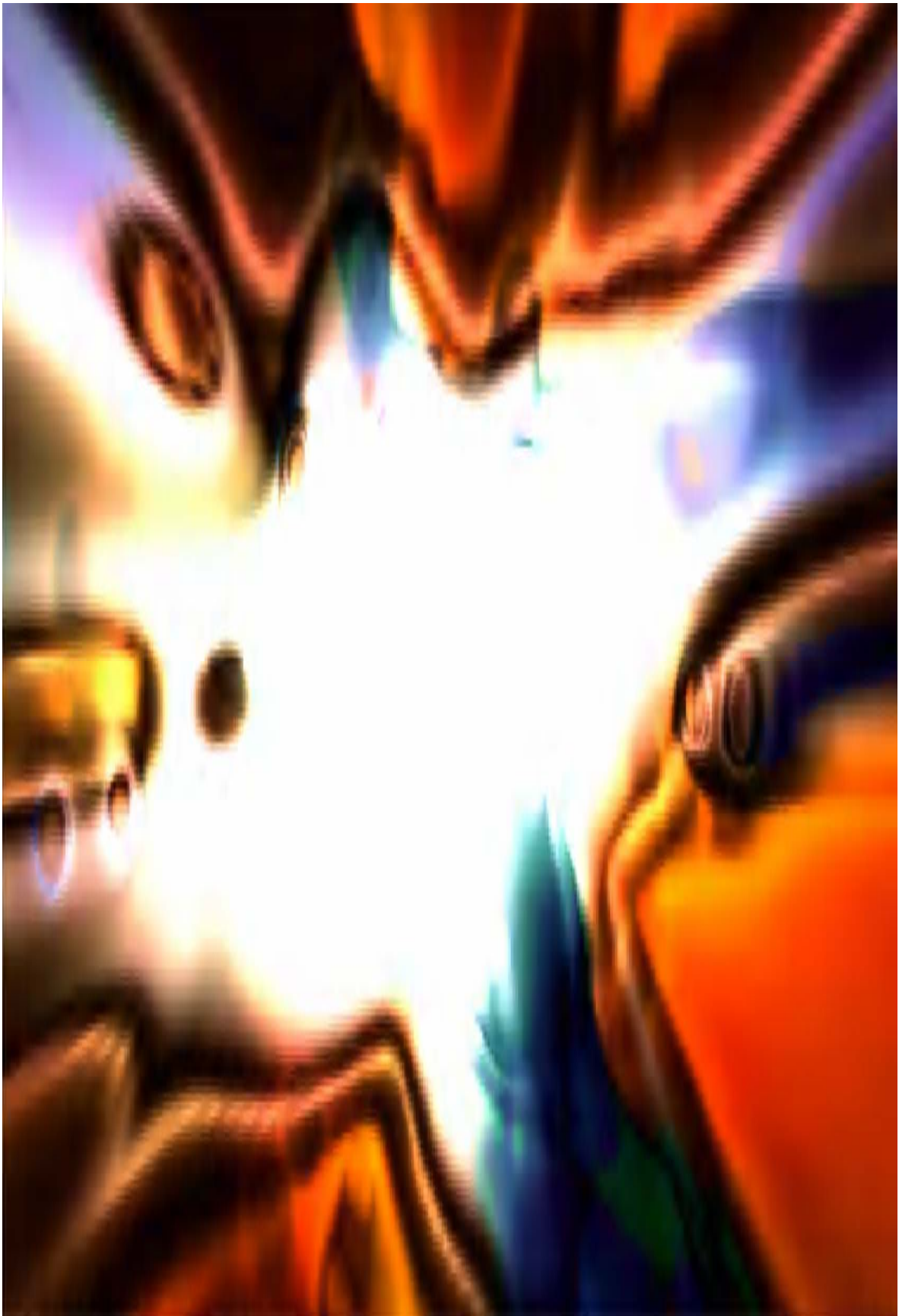




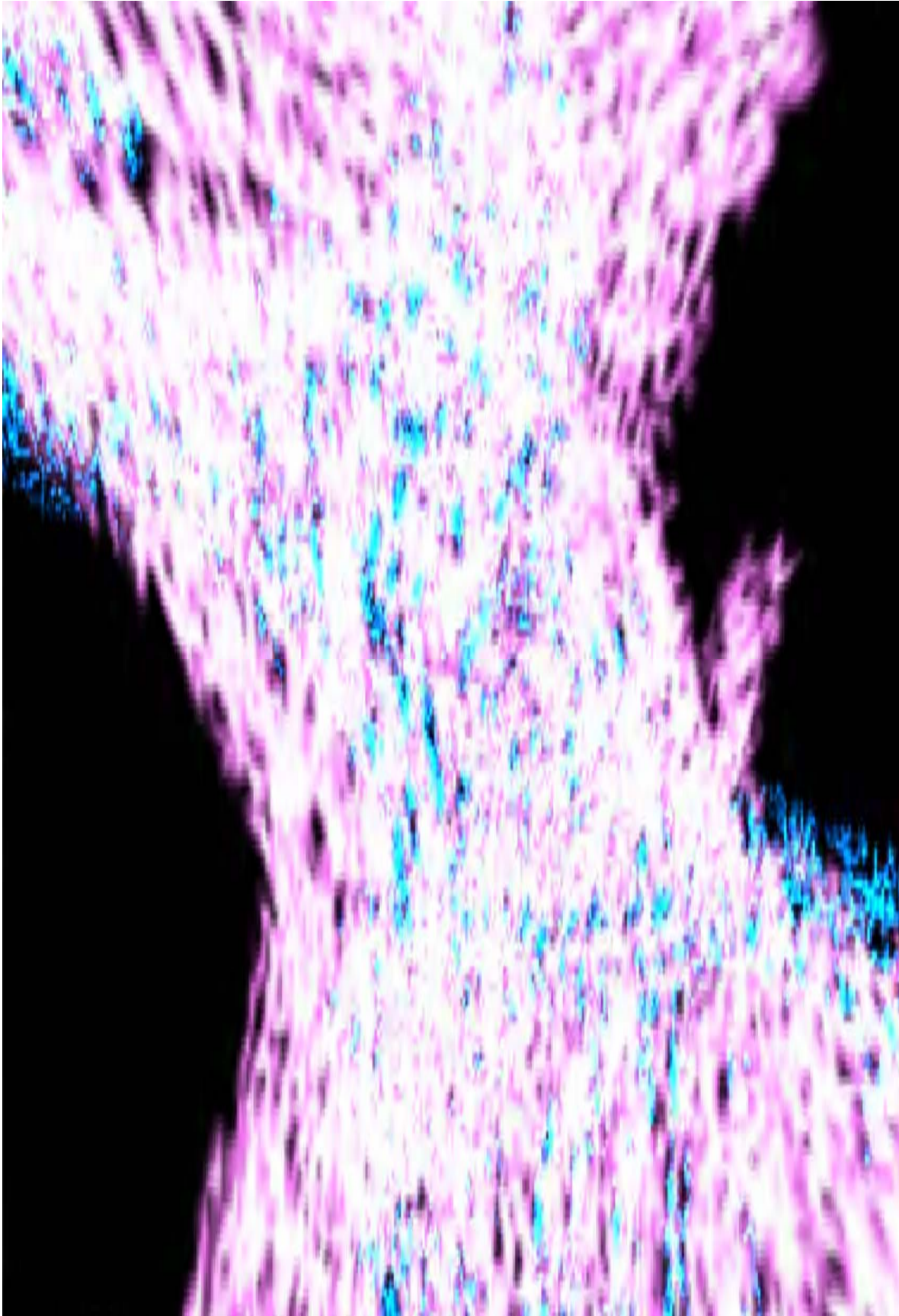
















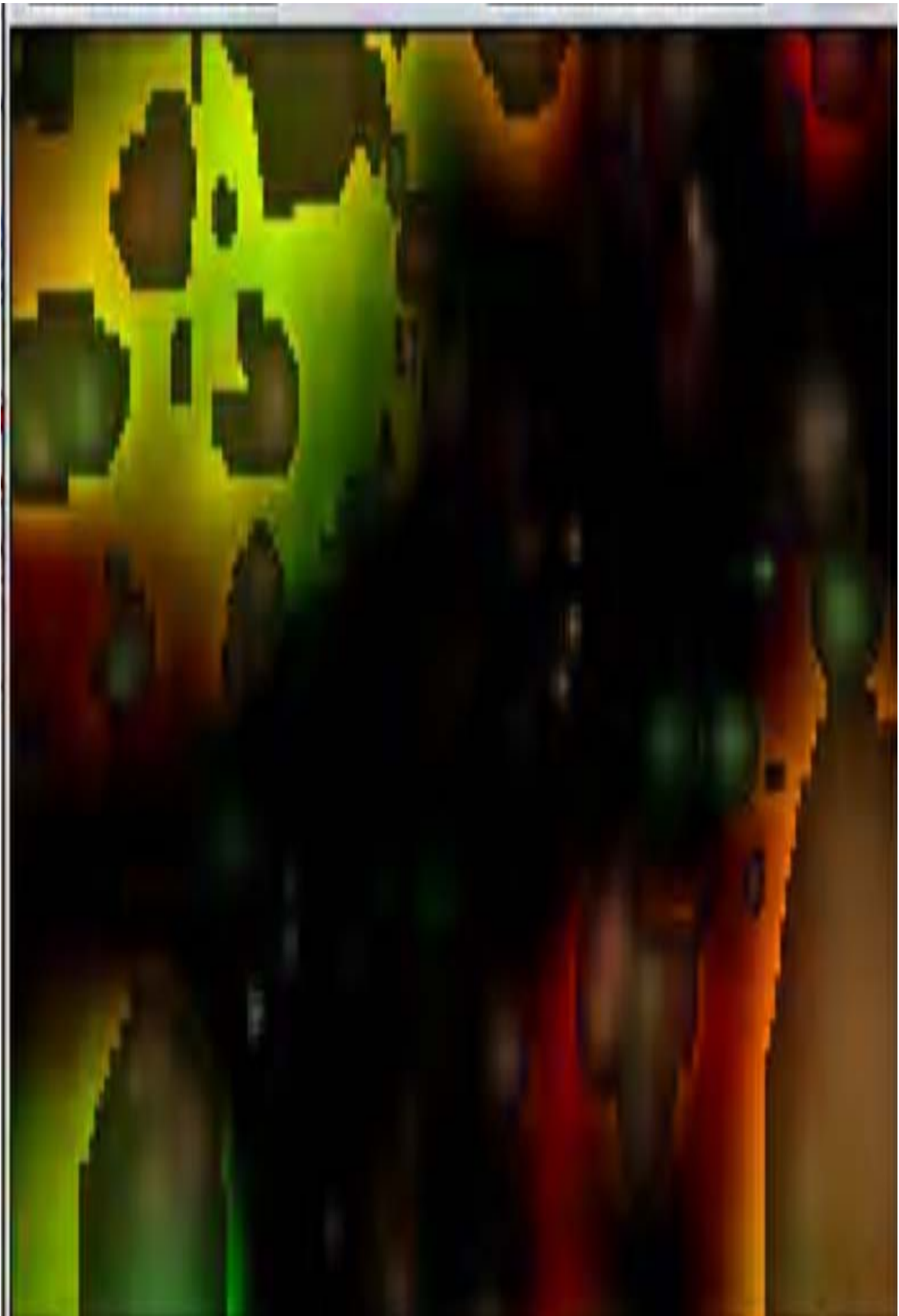




QUANTUM THEORY

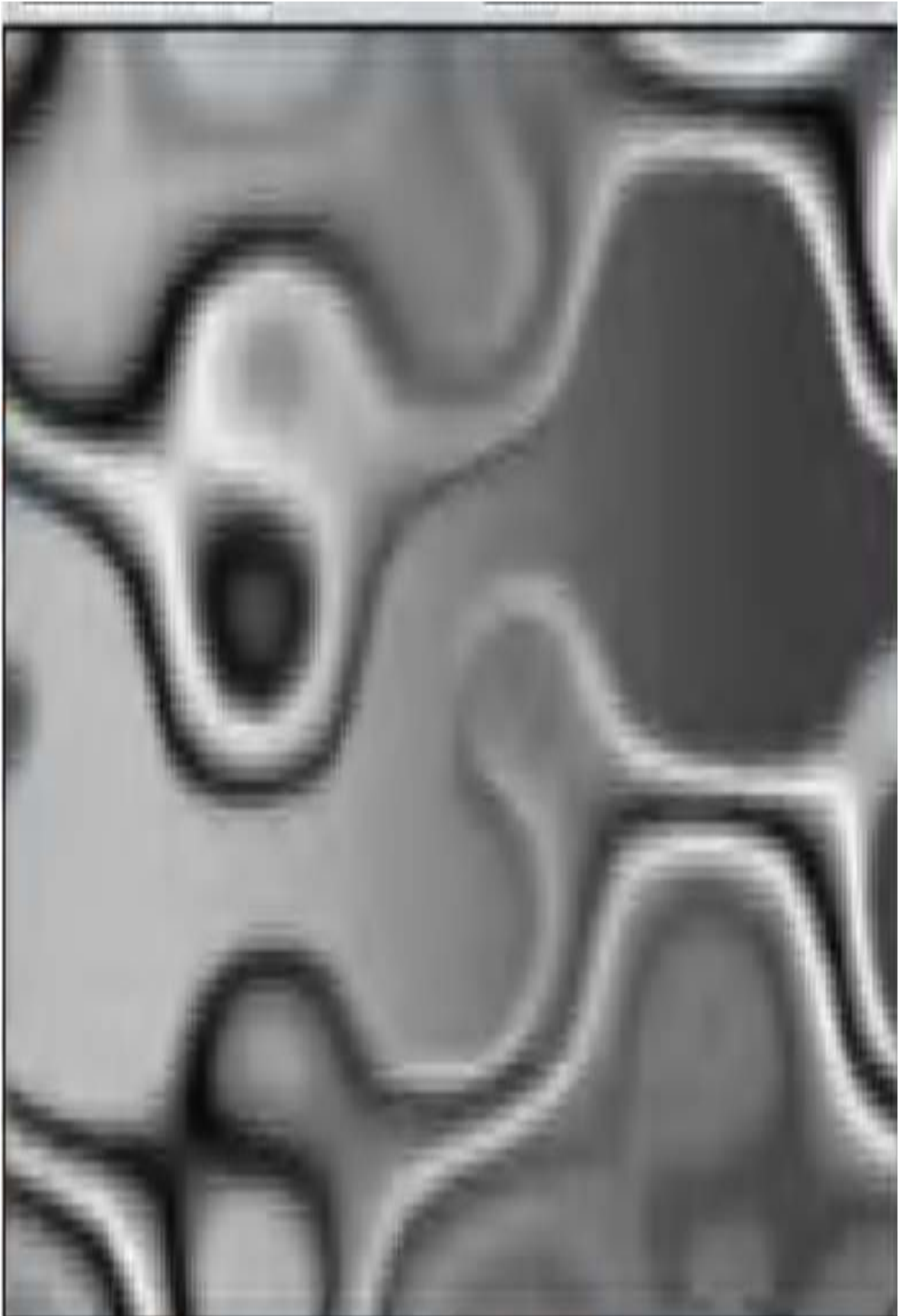
Quantum Theory has been introduced by Max Plank in 1900 and at that time it was received as a strange idea. The principle used was that certain physical quantities can assume discrete values only.







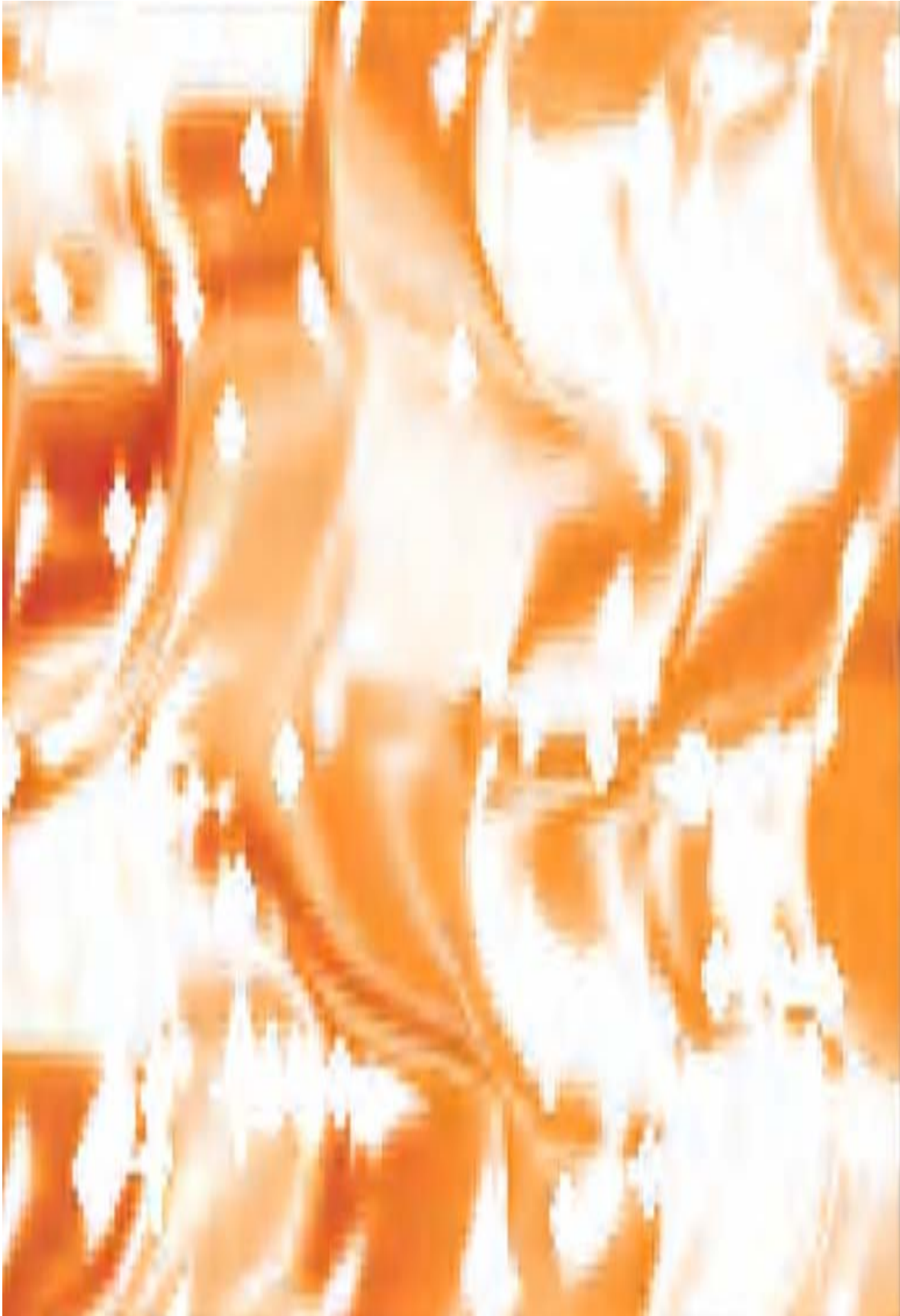




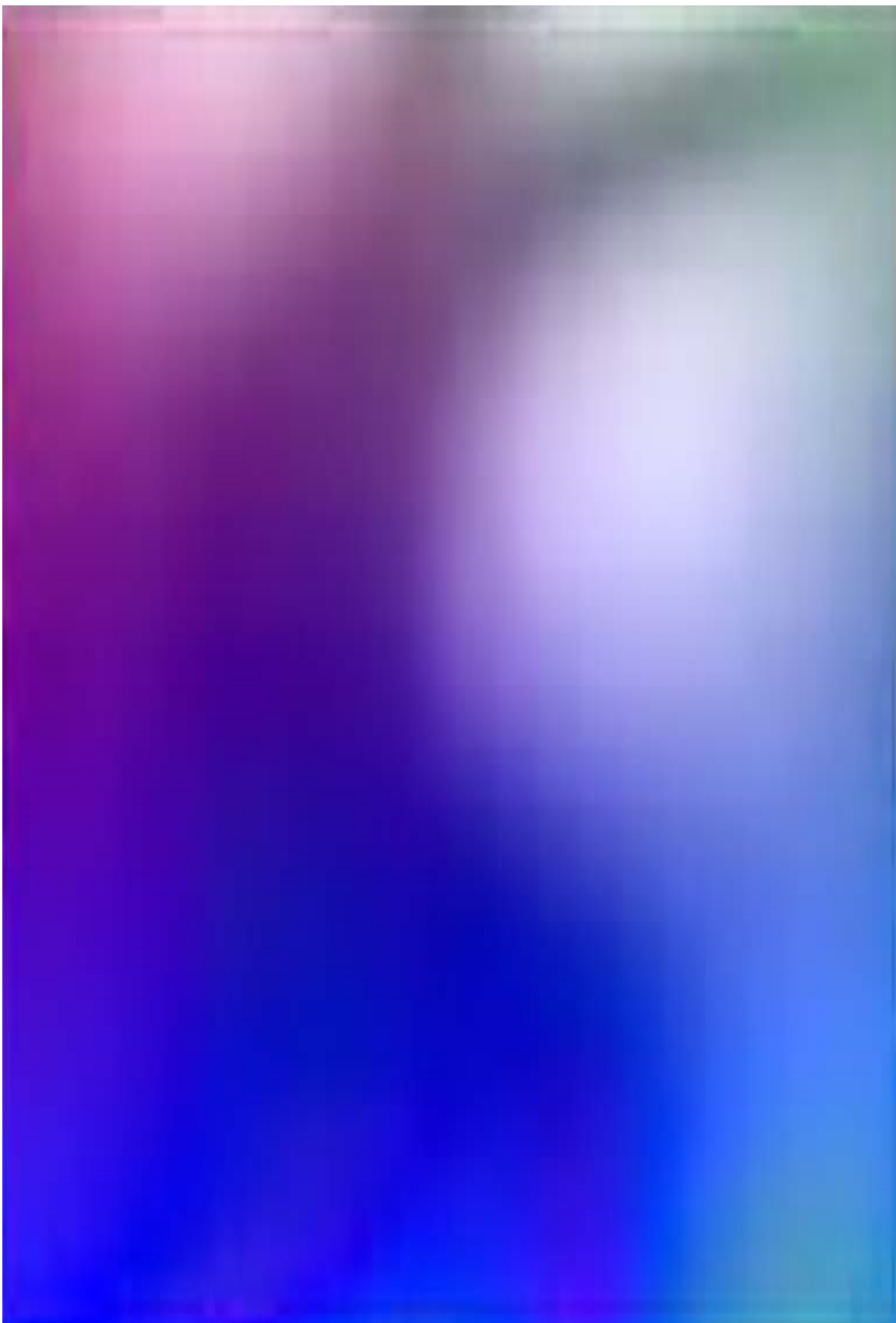


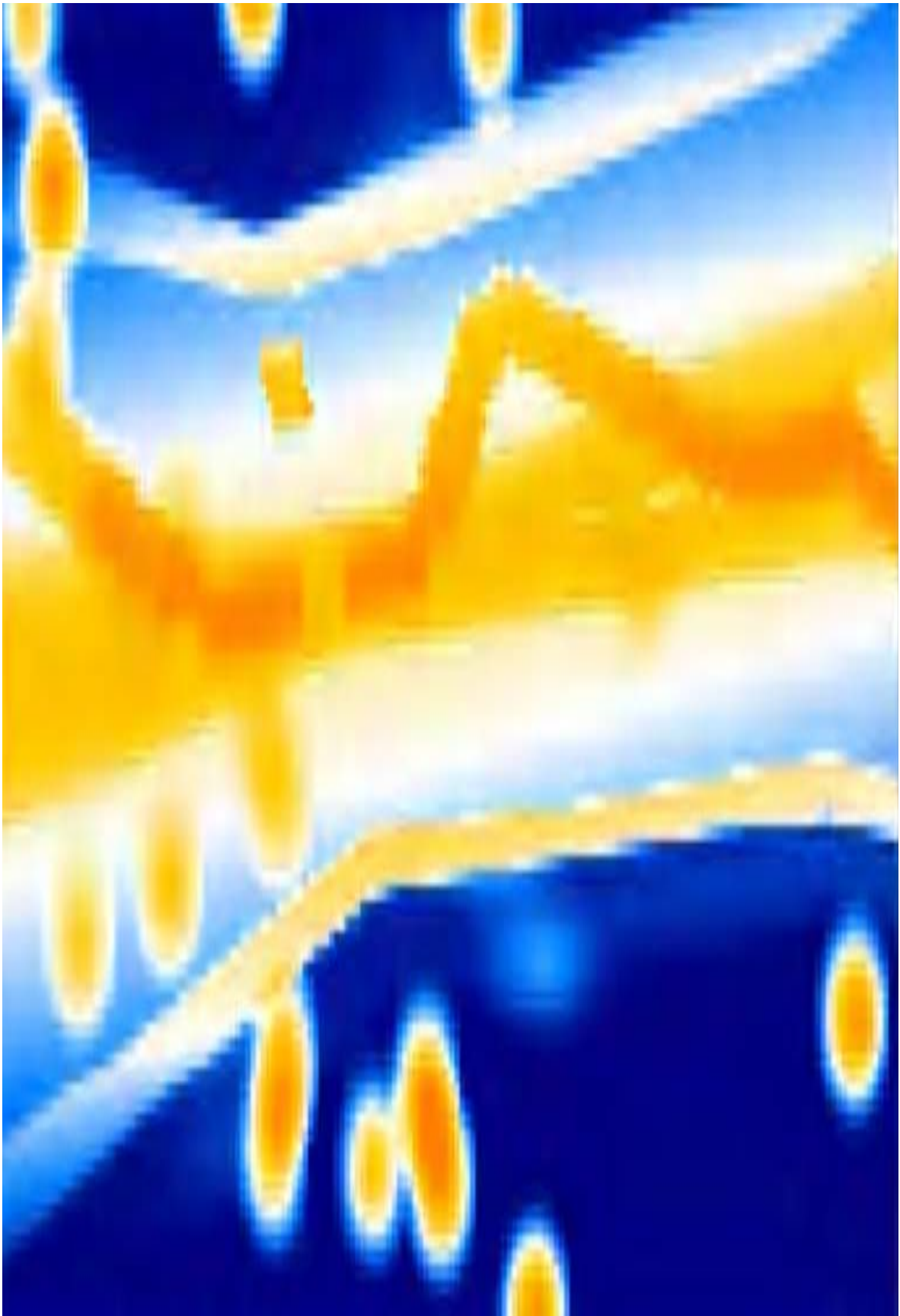


















QUANTIZATION

Quantization is the process of passing from continuous to discrete, from uncountable to countable, and often from infinite to finite.









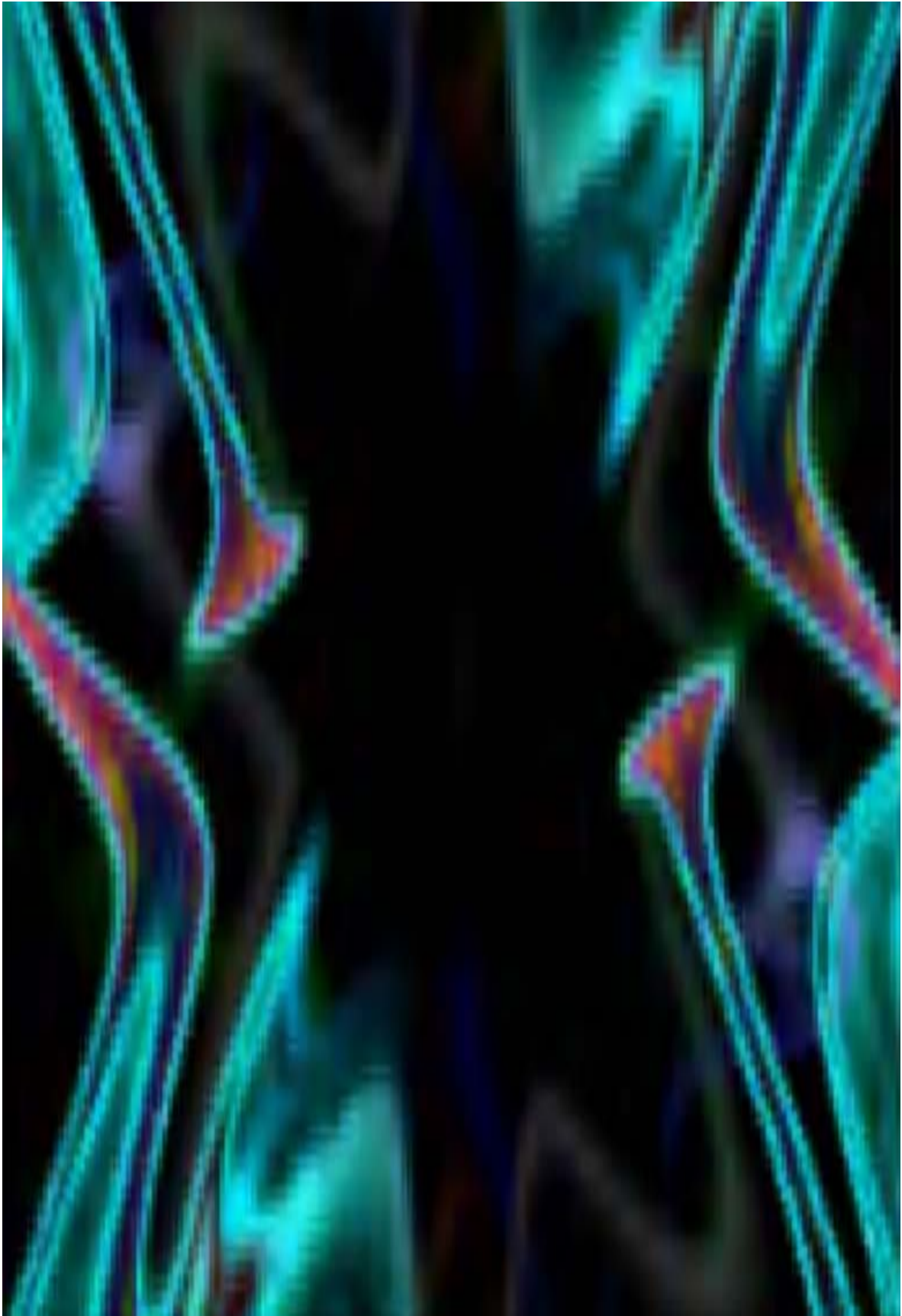








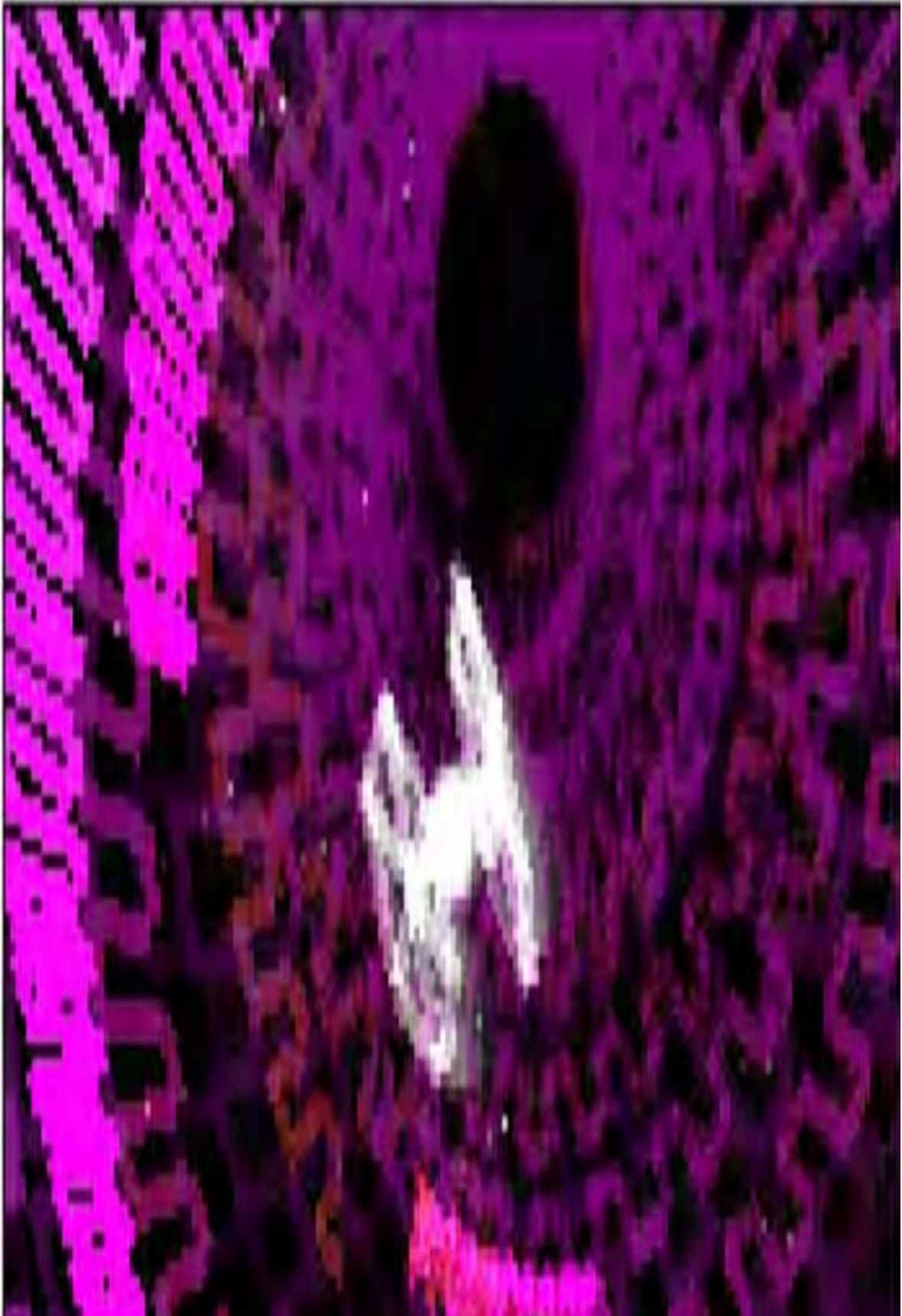
















QUANTUM NUMBERS

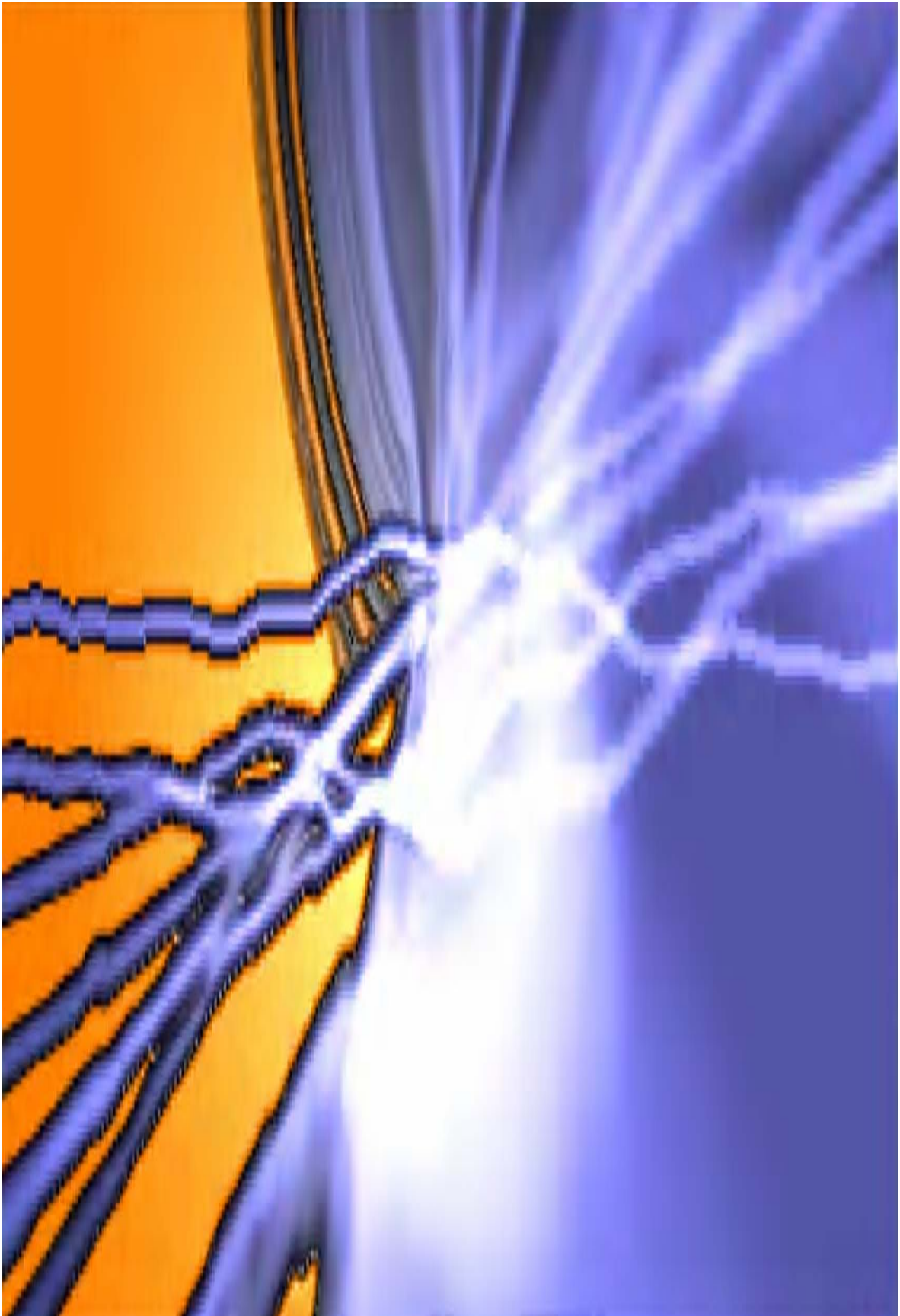
Quantum Numbers are the set of discrete values that a physical system can take with respect to some of its properties. Properties of elementary particles, such as spin, iso-spin, charge, hyper-charge, strangeness, parity are also characterized by quantum numbers. When particles interact, the sum of the quantum numbers of the particles before and after interaction remains the same.

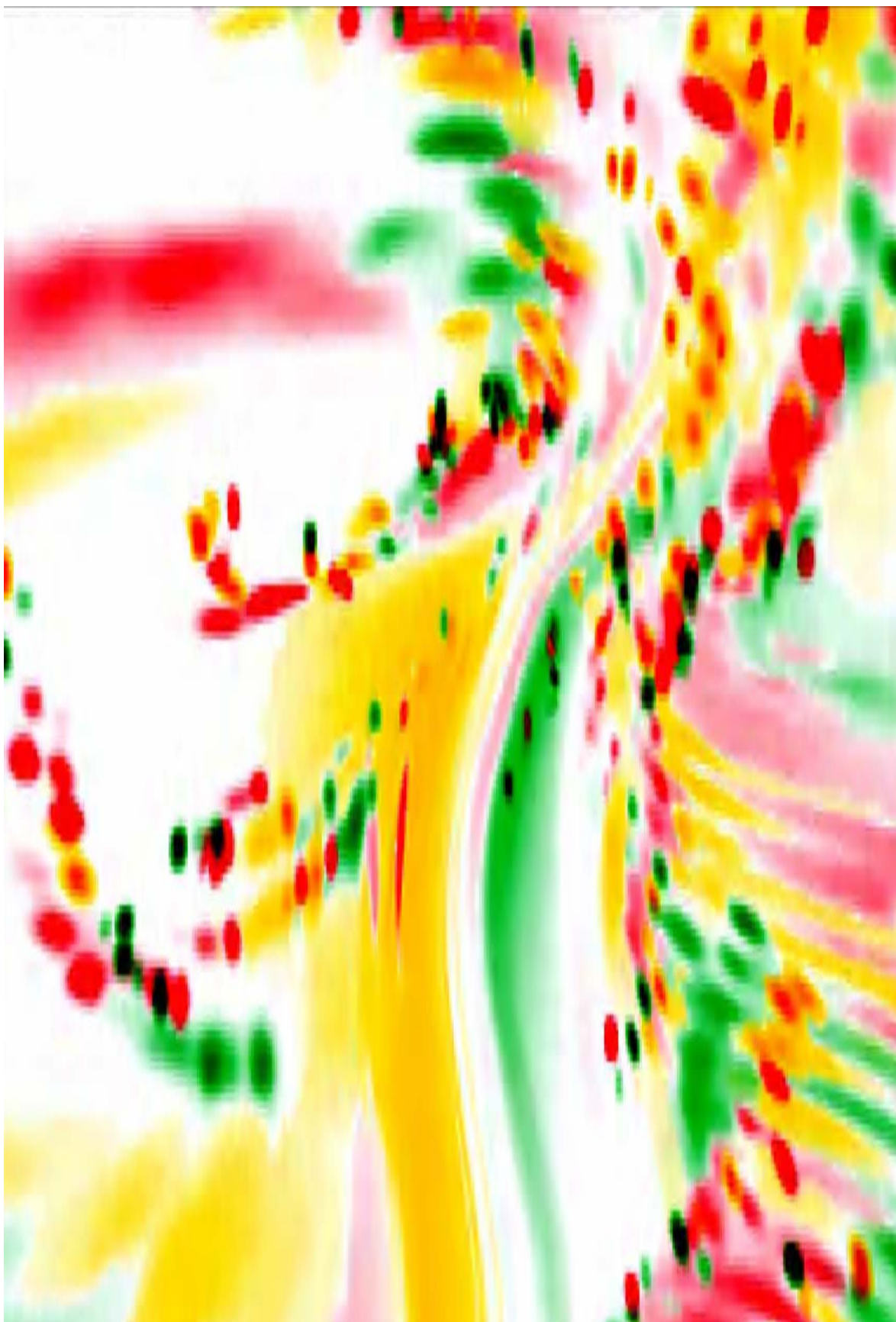




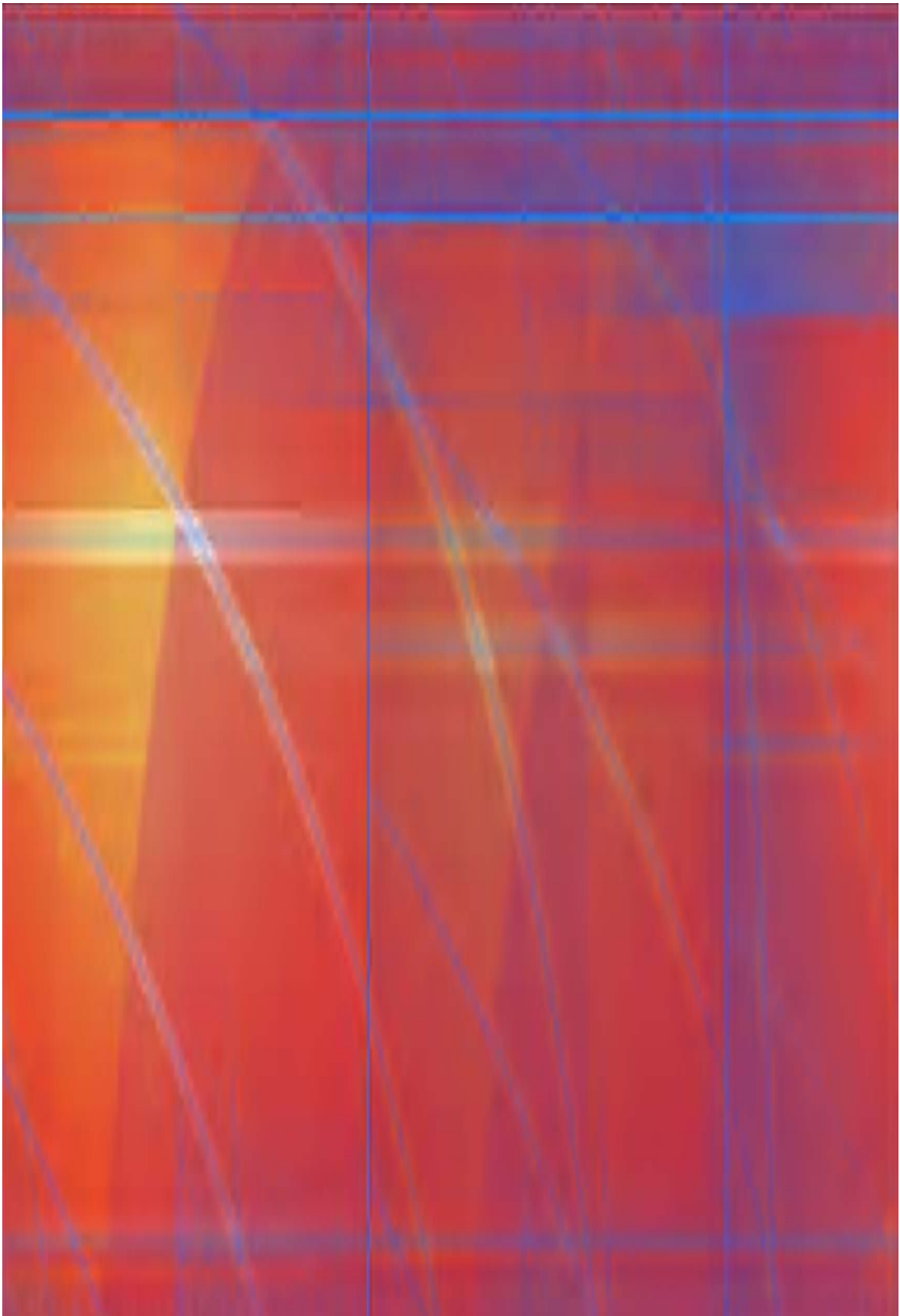




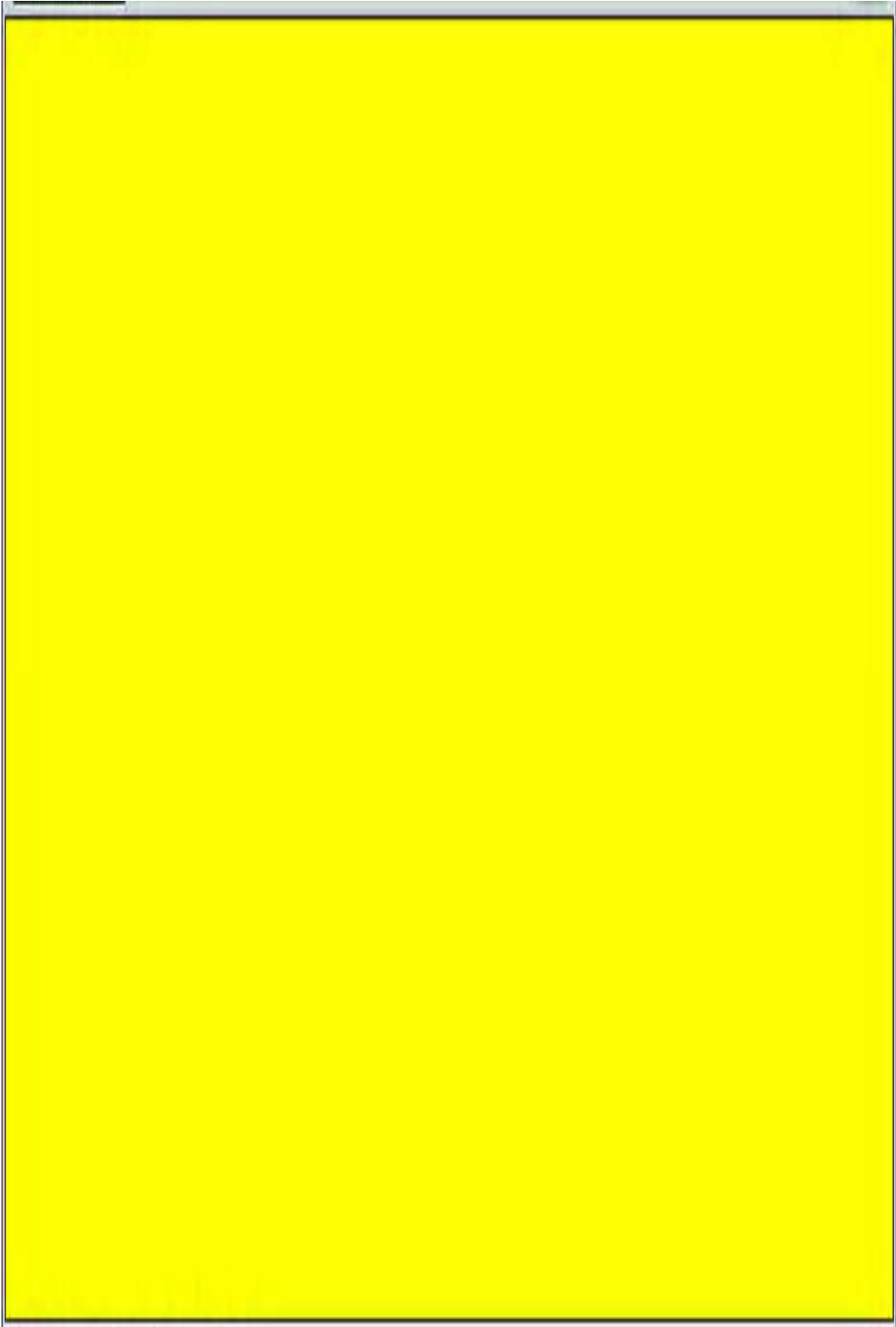




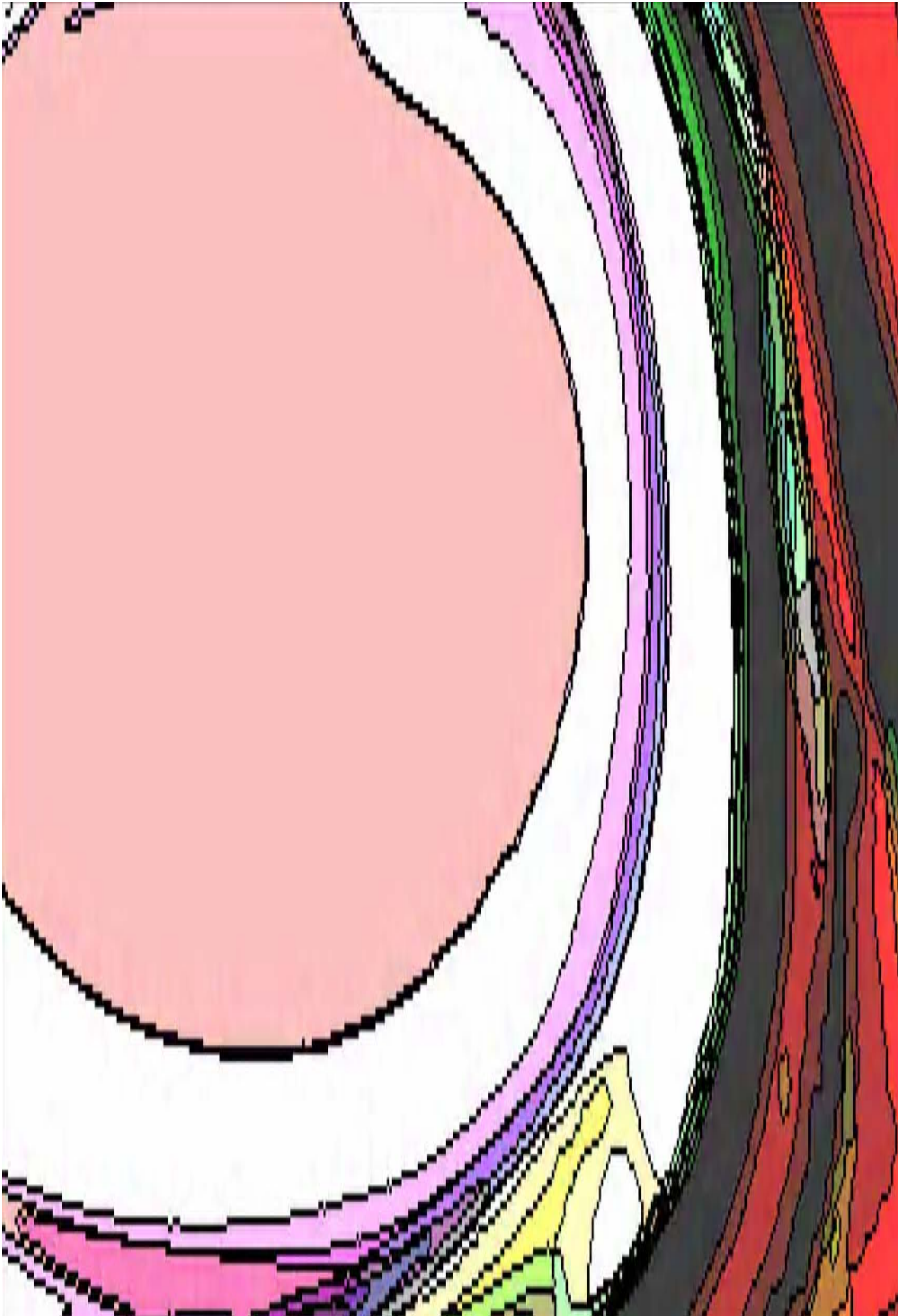




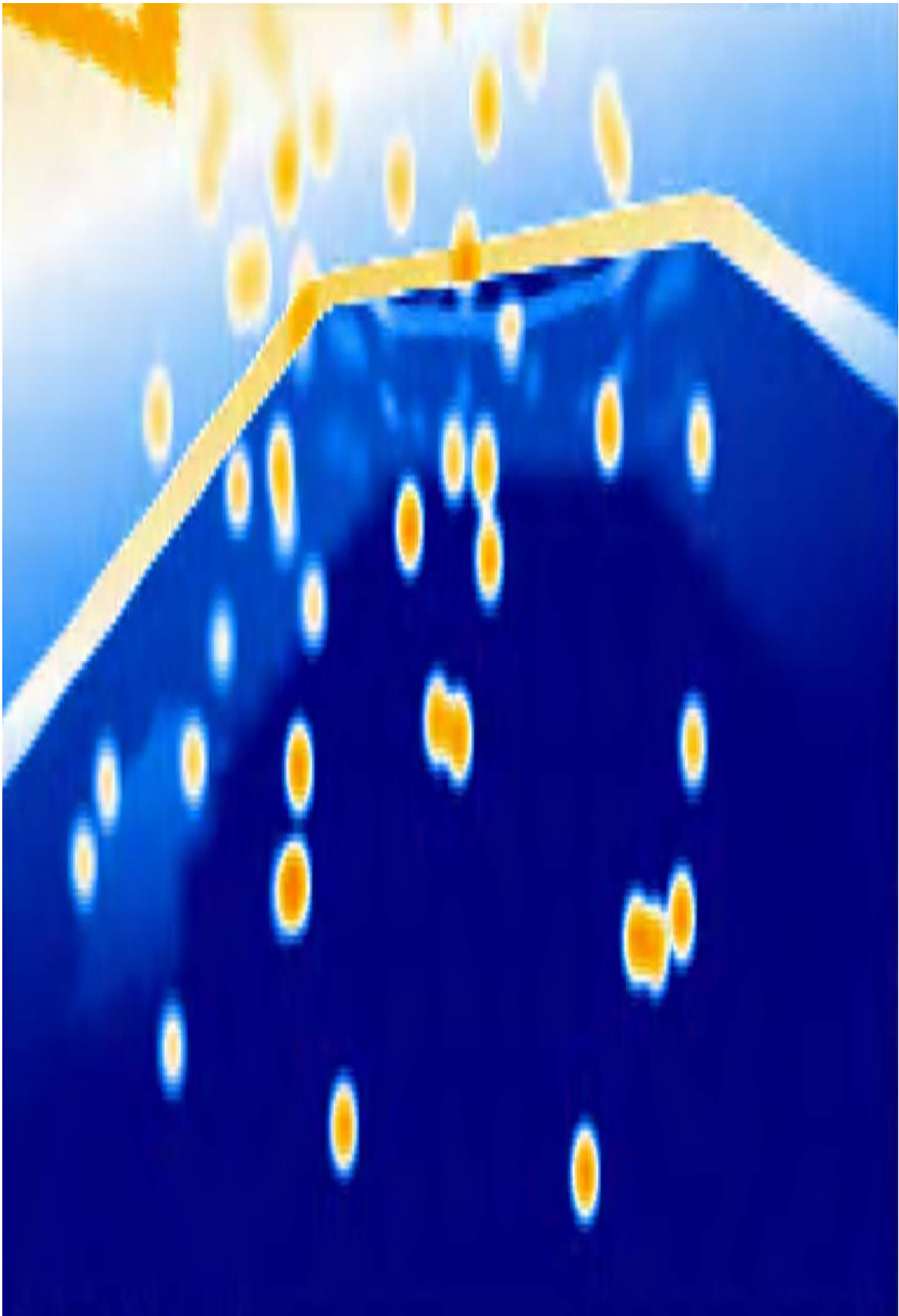


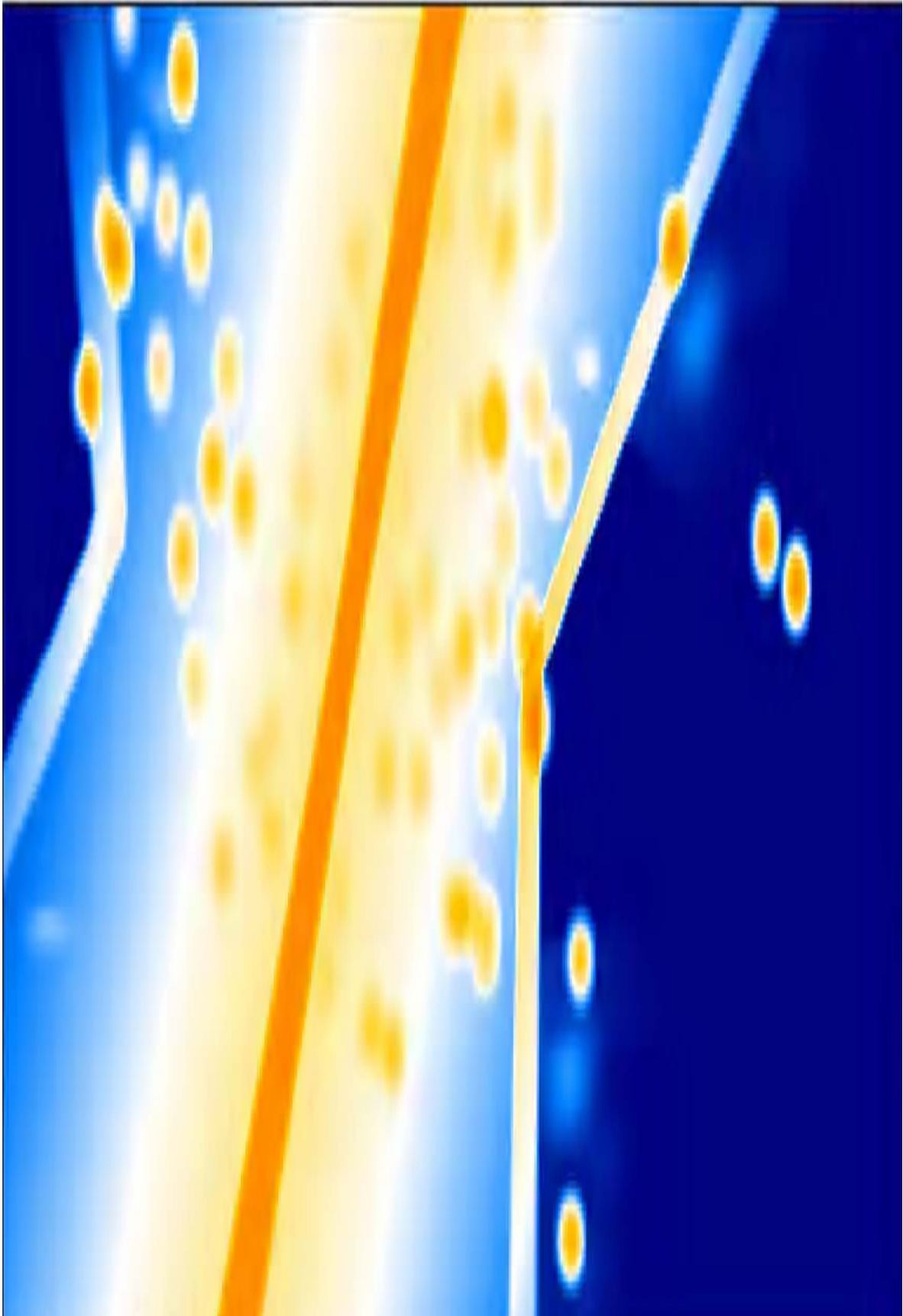








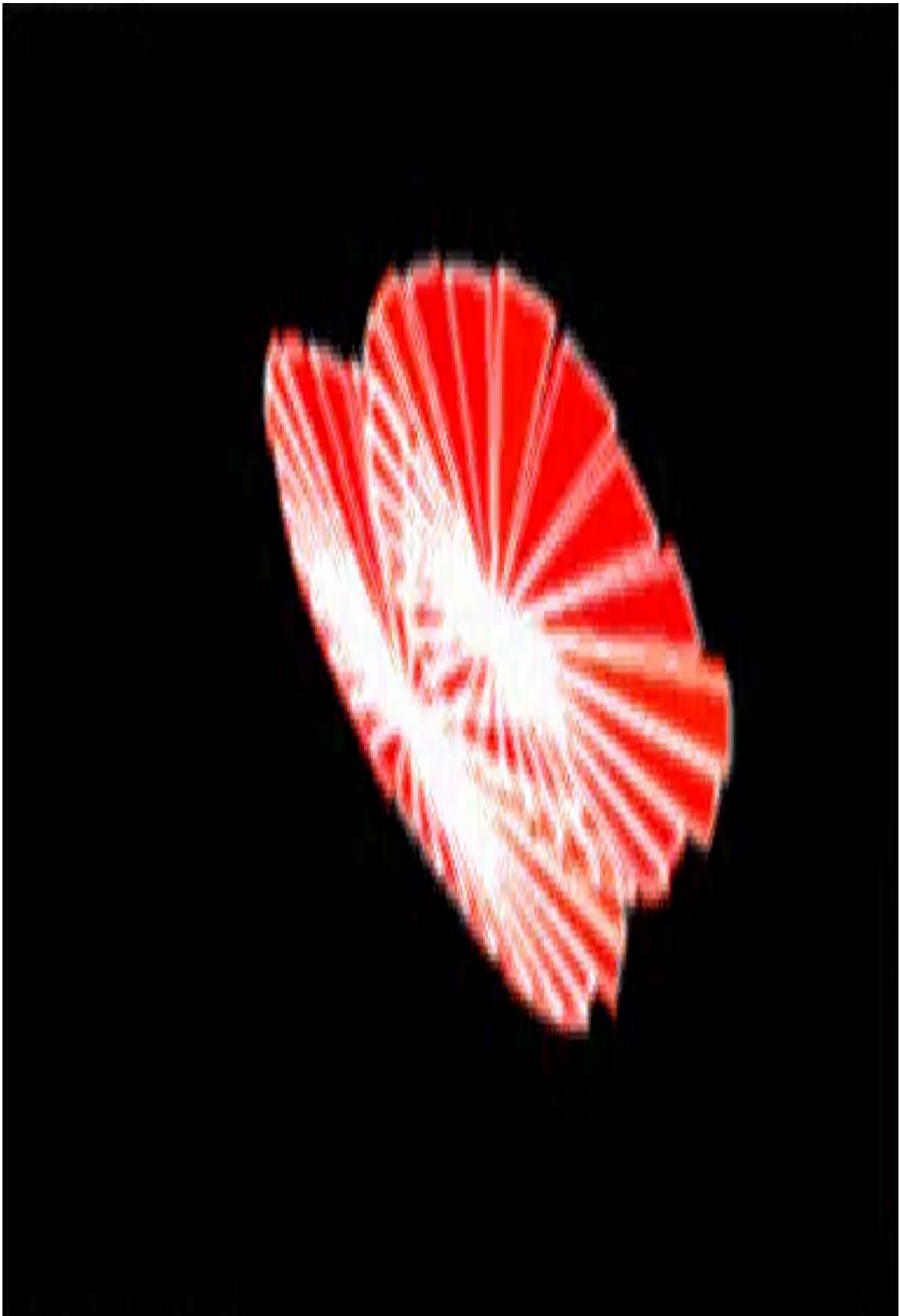




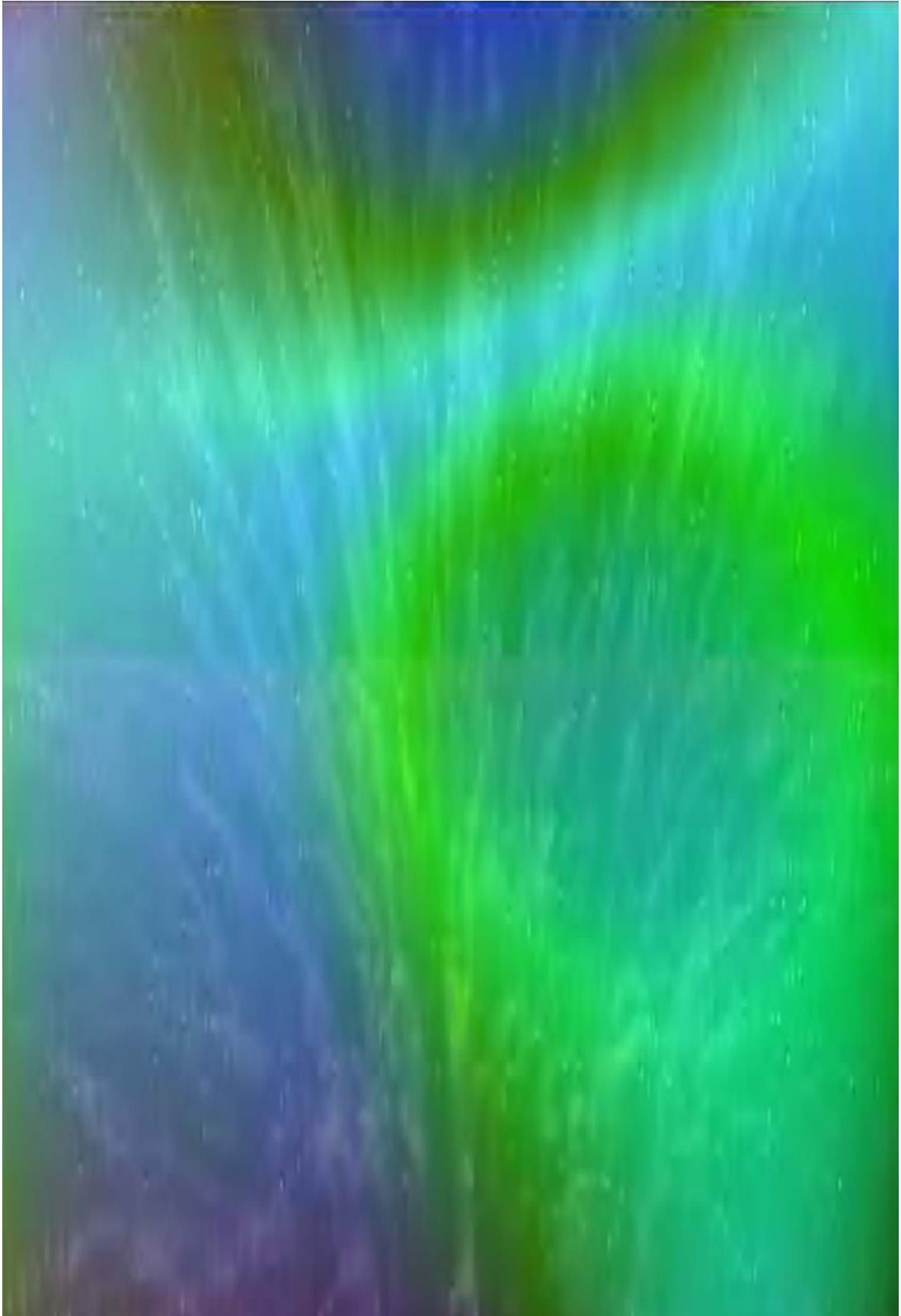
QUANTUM MECHANICS

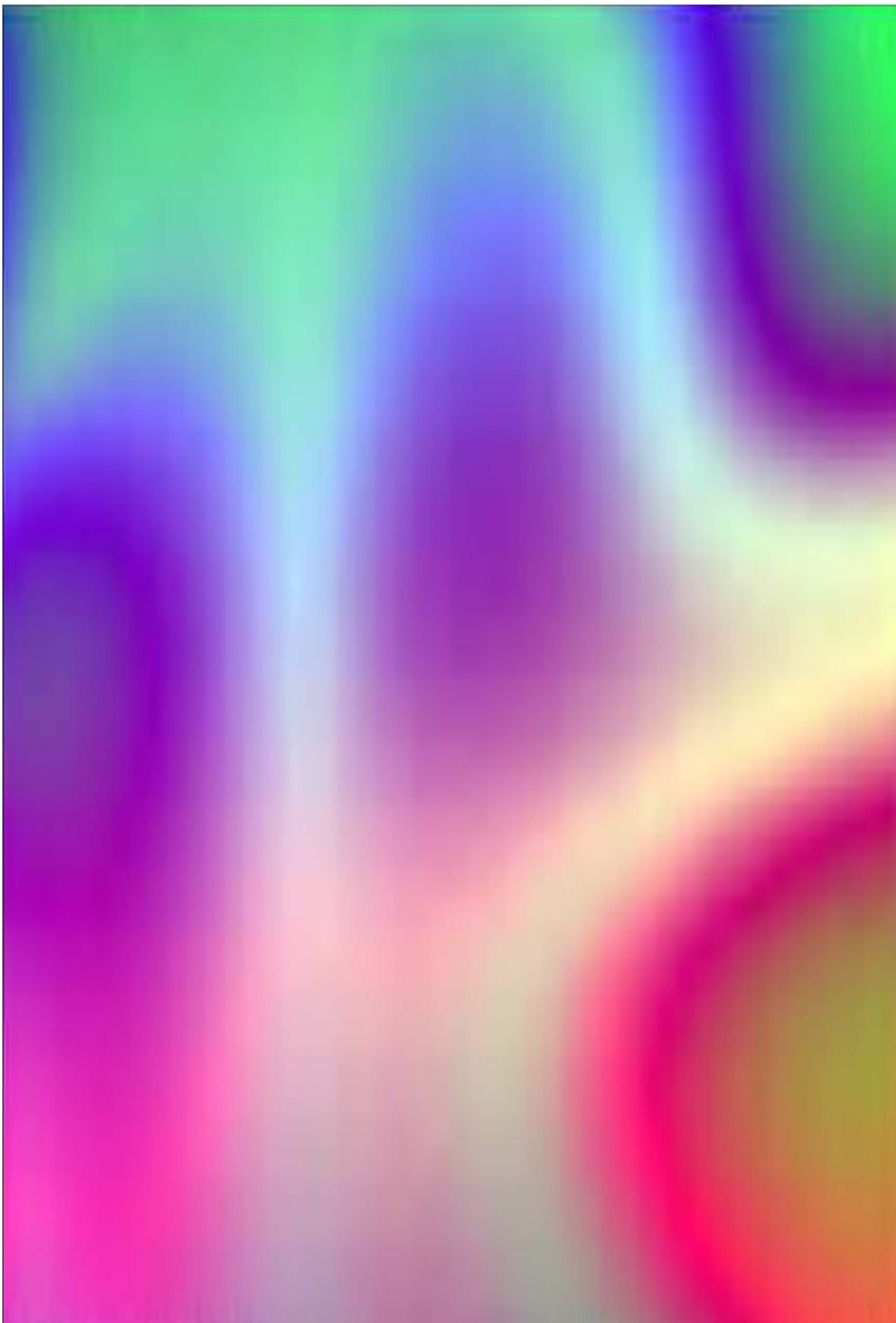
Quantum Mechanics deals with the quantities that can be measured in atoms or related systems. Schrödinger developed the **Wave Mechanics** with his famous equation (1926), while Born and Heisenberg the **Matrix Mechanics**.





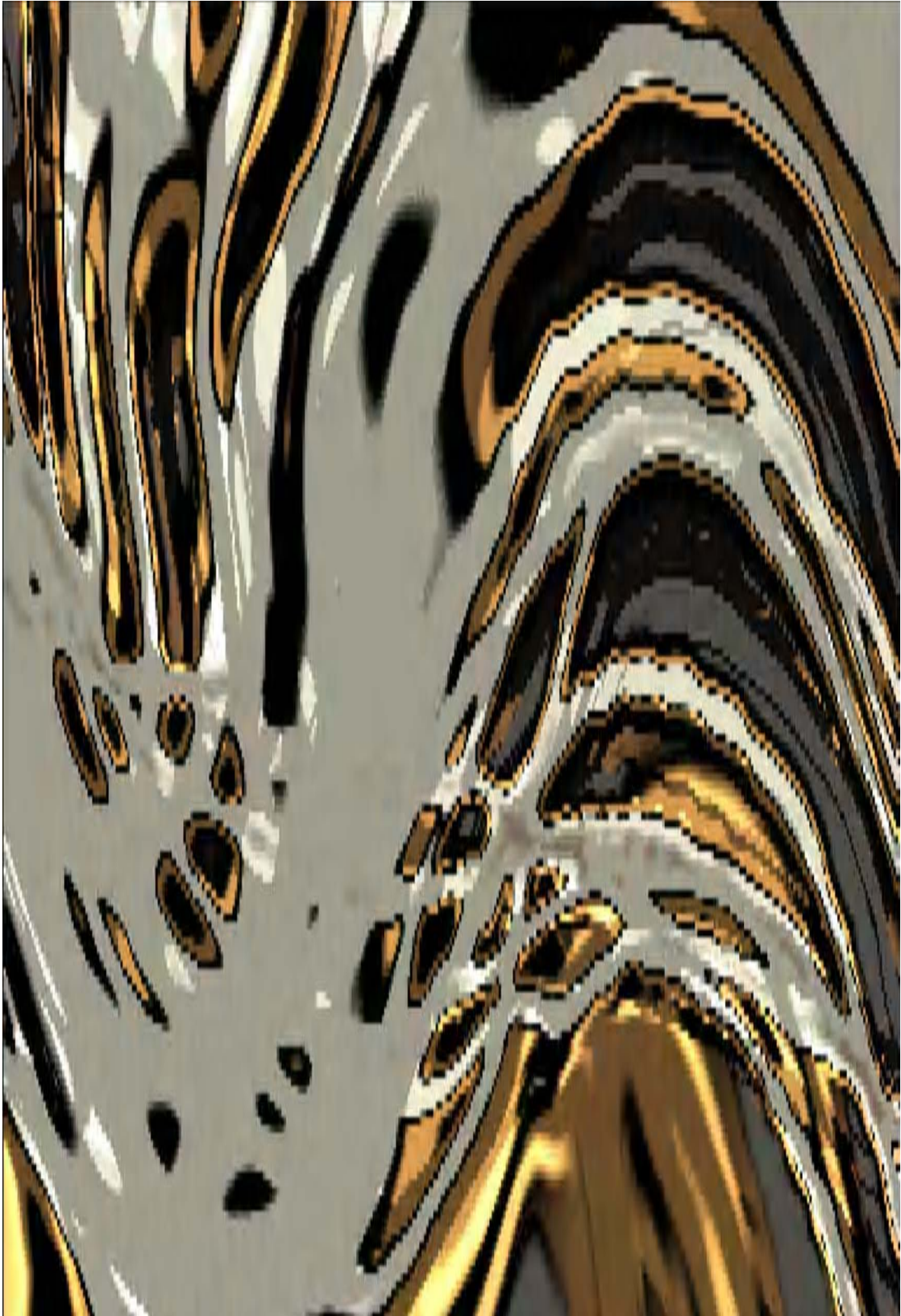


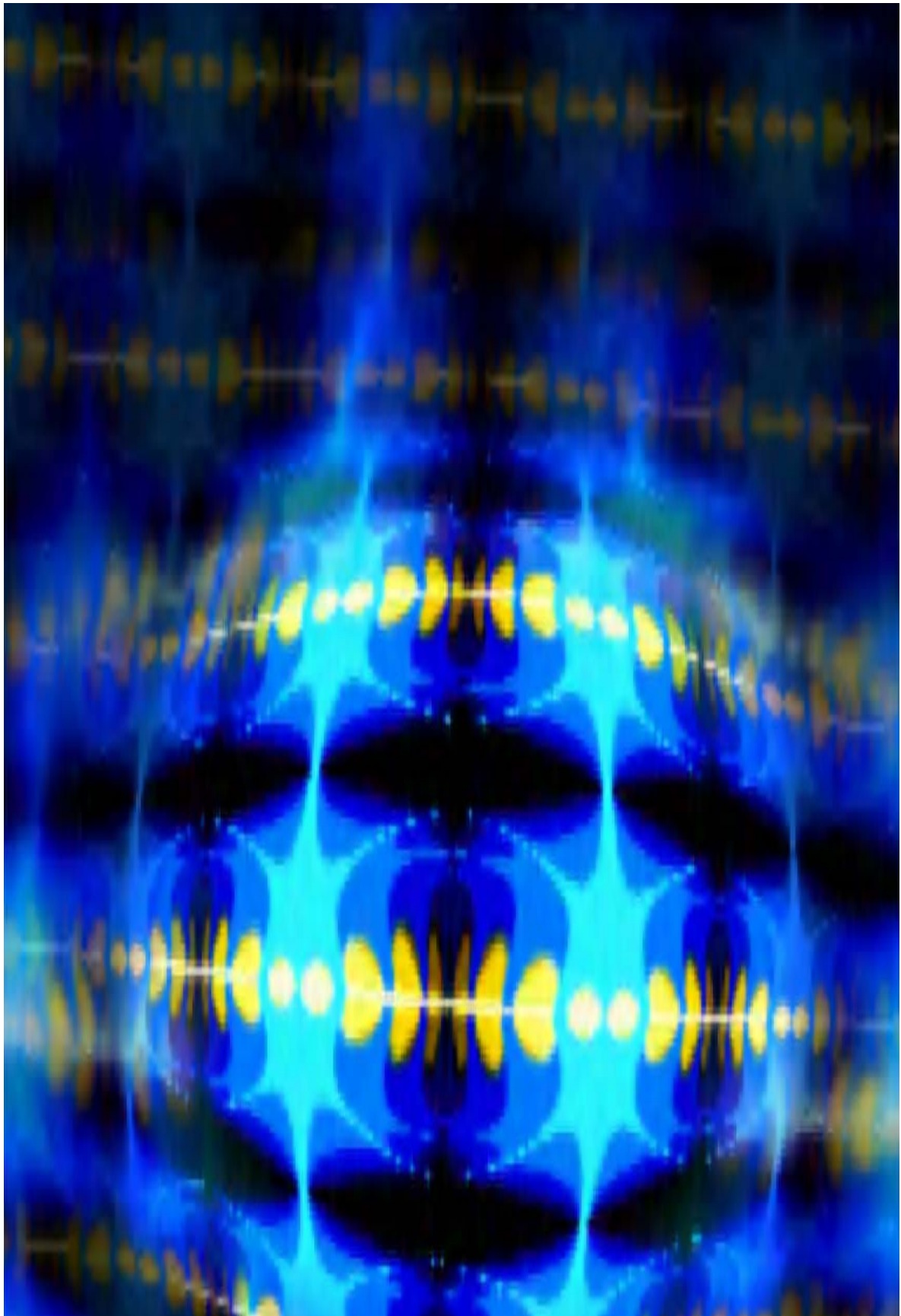








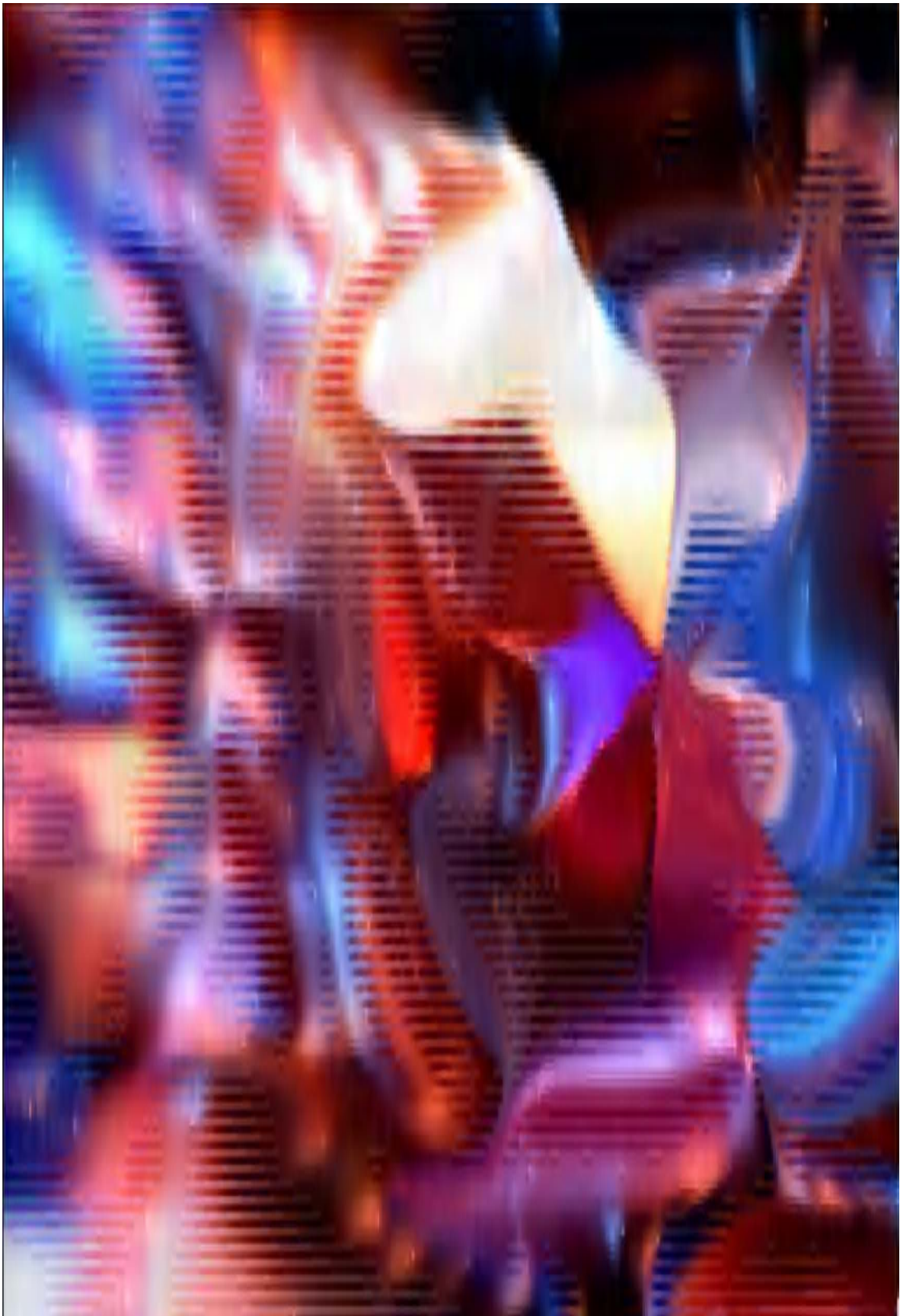


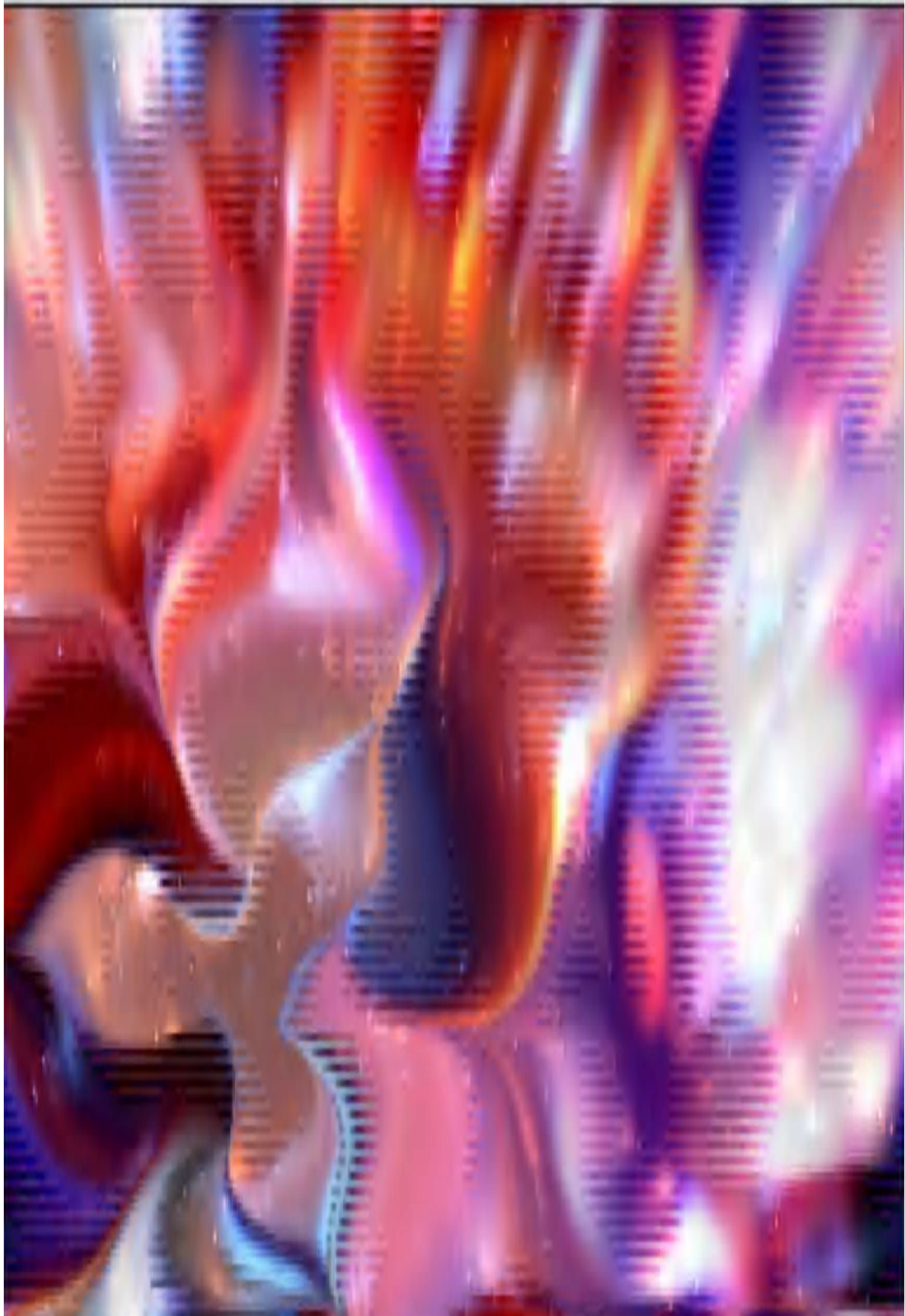












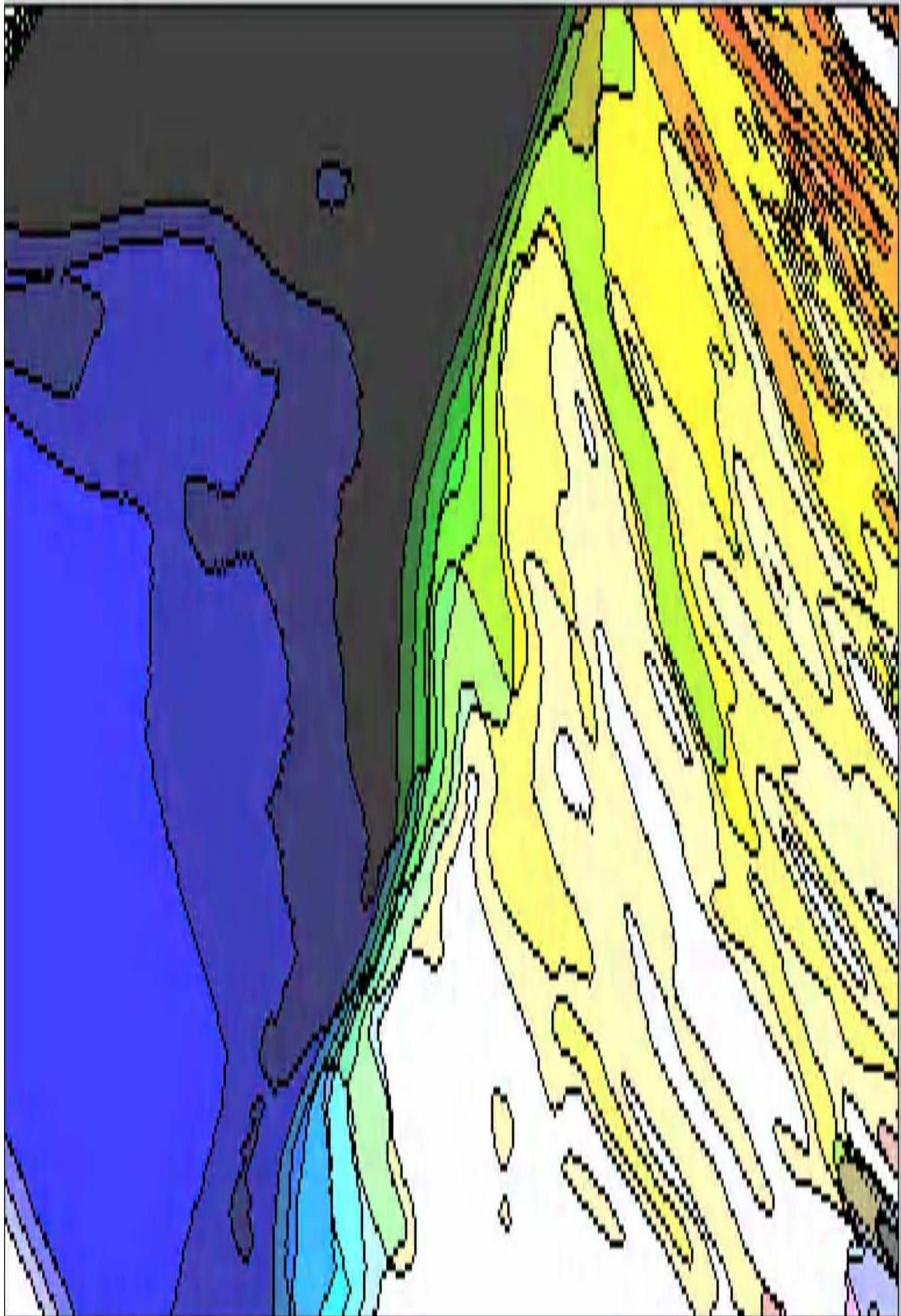


GENERALIZATION OF SCHRÖDINGER EQUATION

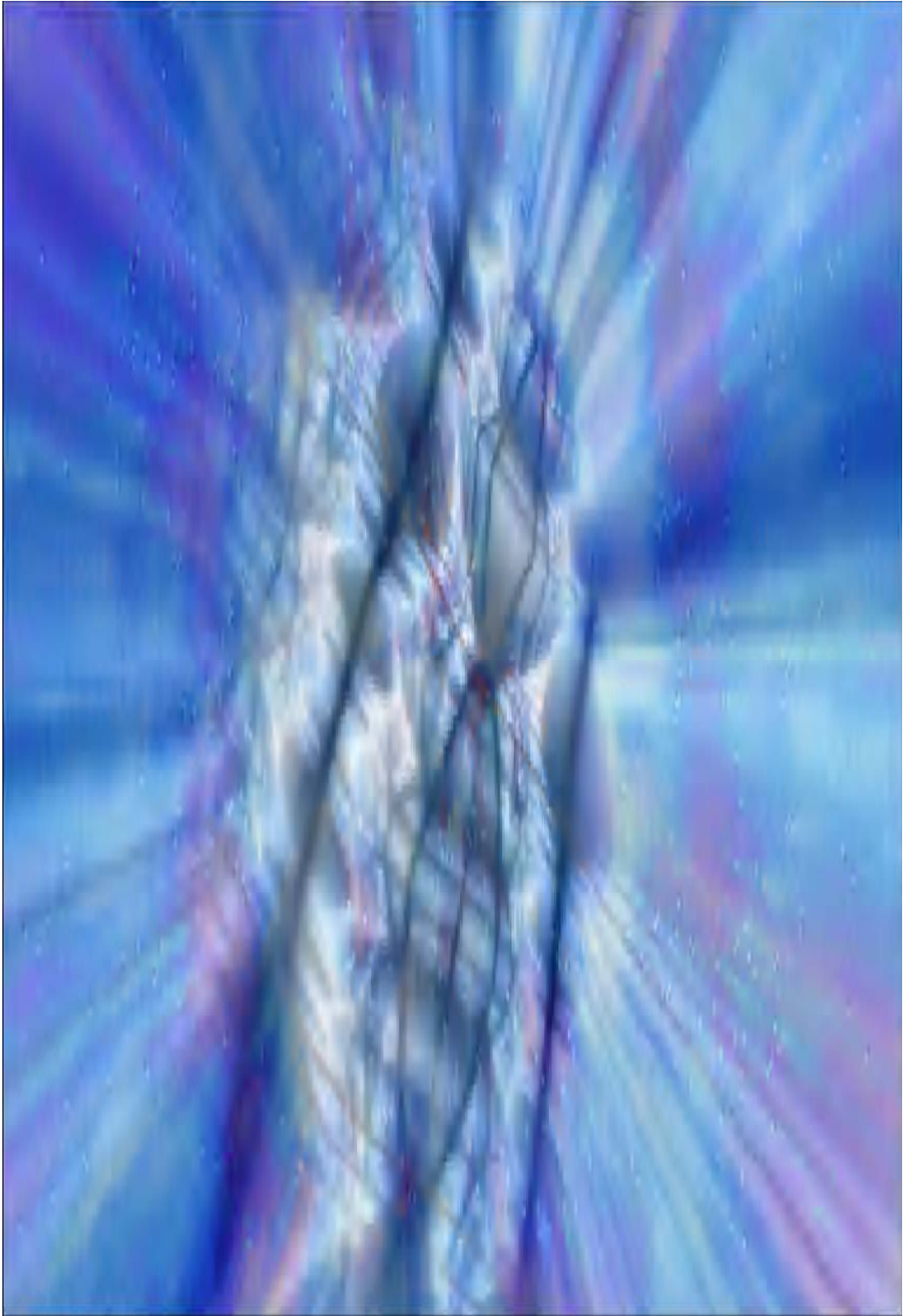
Alternatively, F. Smarandache and V. Christianto [in the book “Multi-Valued Logic, Neutrosophy, and Schrödinger Equation”, p. 44, Phoenix, 2005] found a **Generalization of Schrödinger Equation** from Nottale’s approach. They re-wrote Nottale’s generalized Schrödinger equation via diffusion approach:

$$i2m\gamma\left[-(i\gamma + a(t)/2)(\partial\psi/\partial x)^2\psi^{-2} + \partial\ln\psi/\partial t\right] \\ + i\gamma a(t)(\partial^2\psi/\partial x^2)/\psi = \Phi + a(x)$$

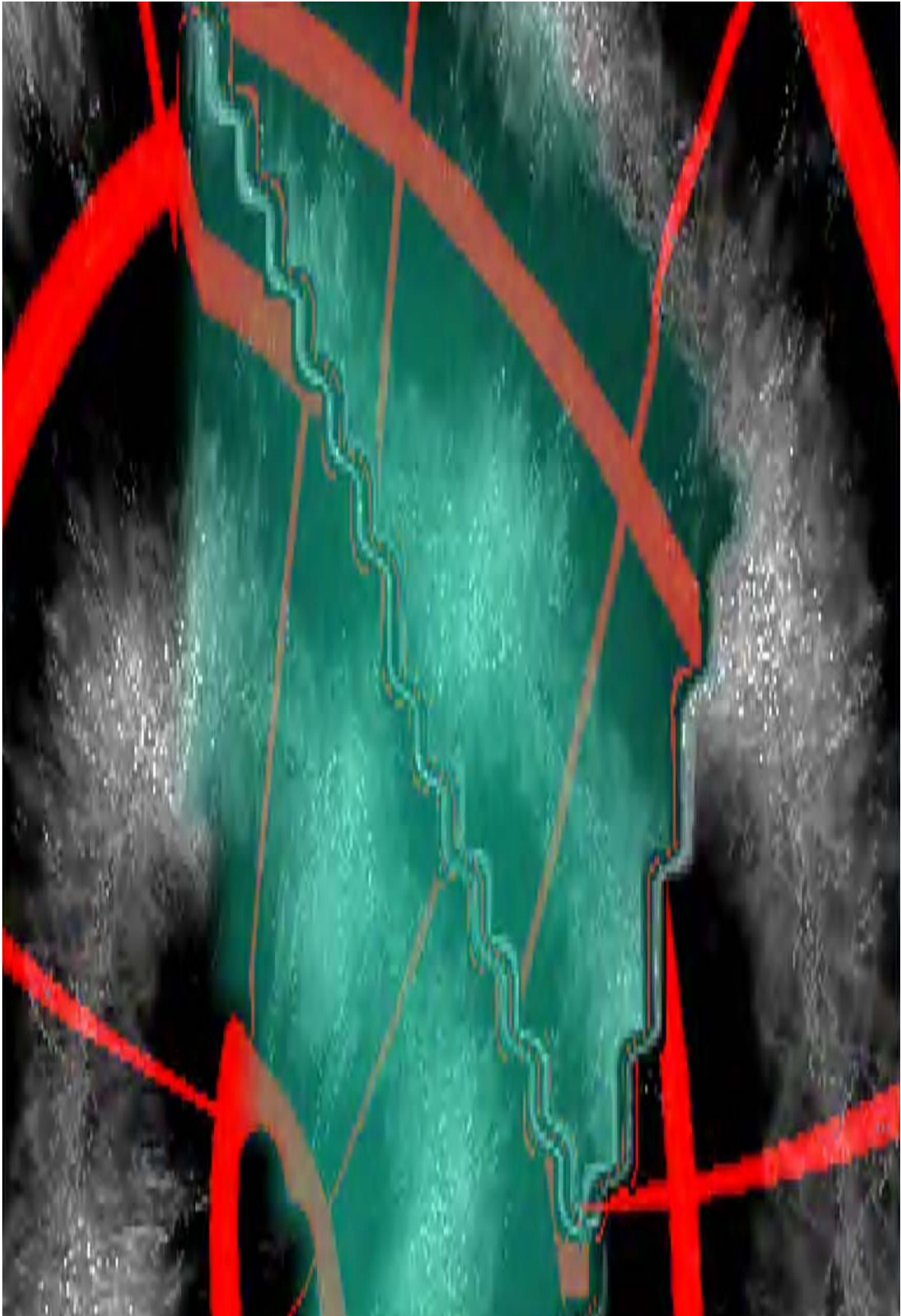
where $\psi, a(x), \Phi, \gamma$ each represents classical wave function, an arbitrary constant, scalar potential, and a constant, respectively.

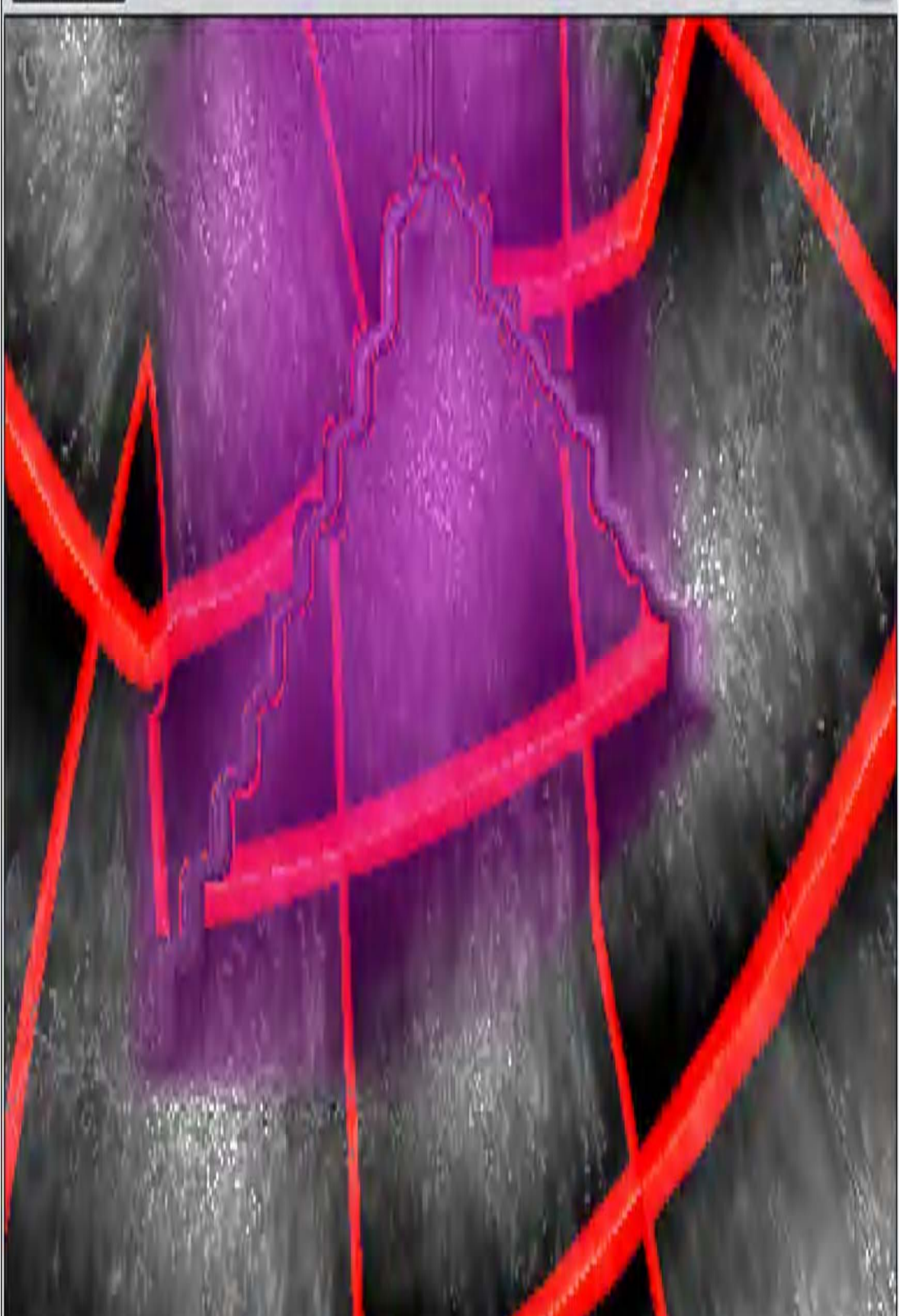




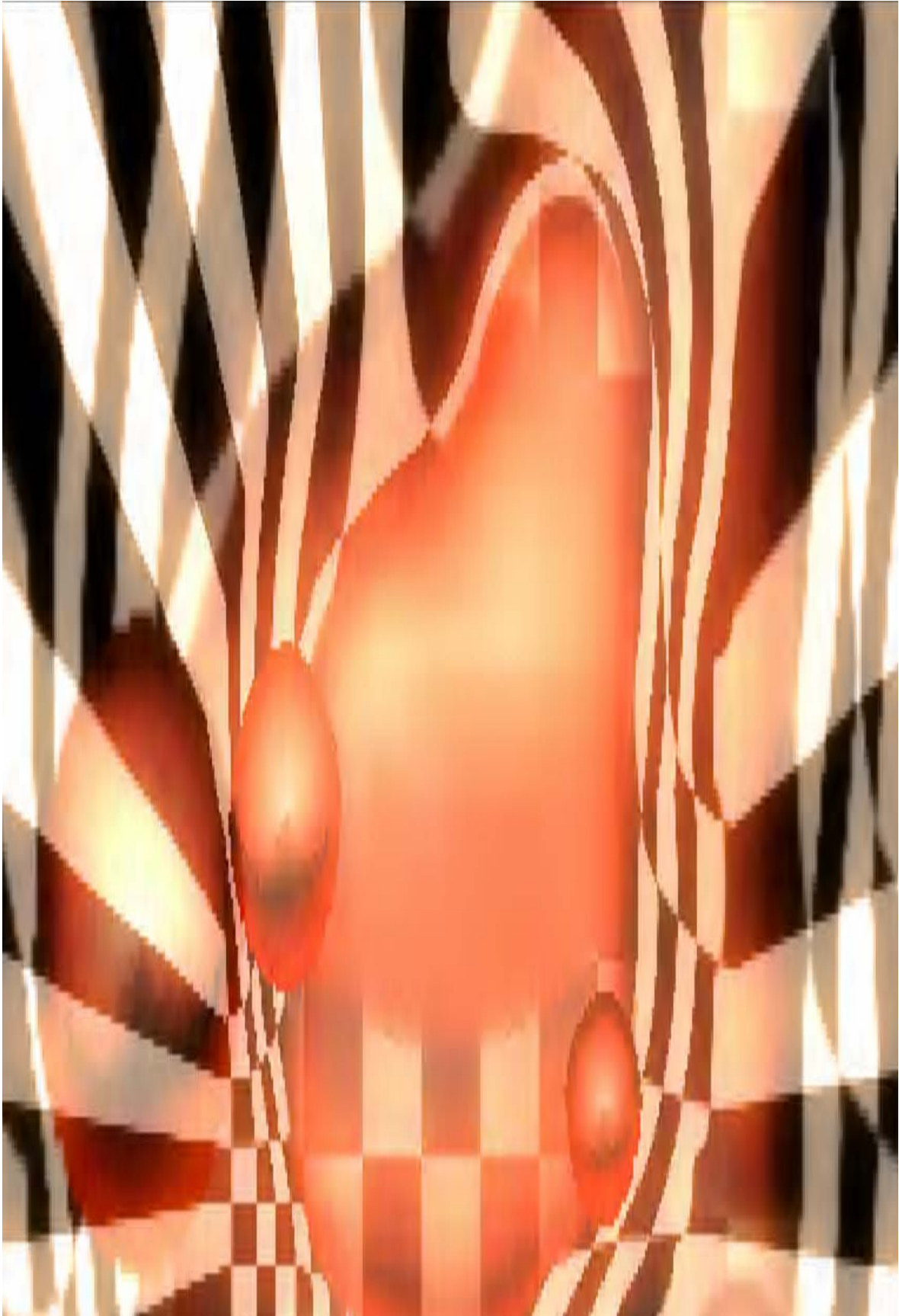


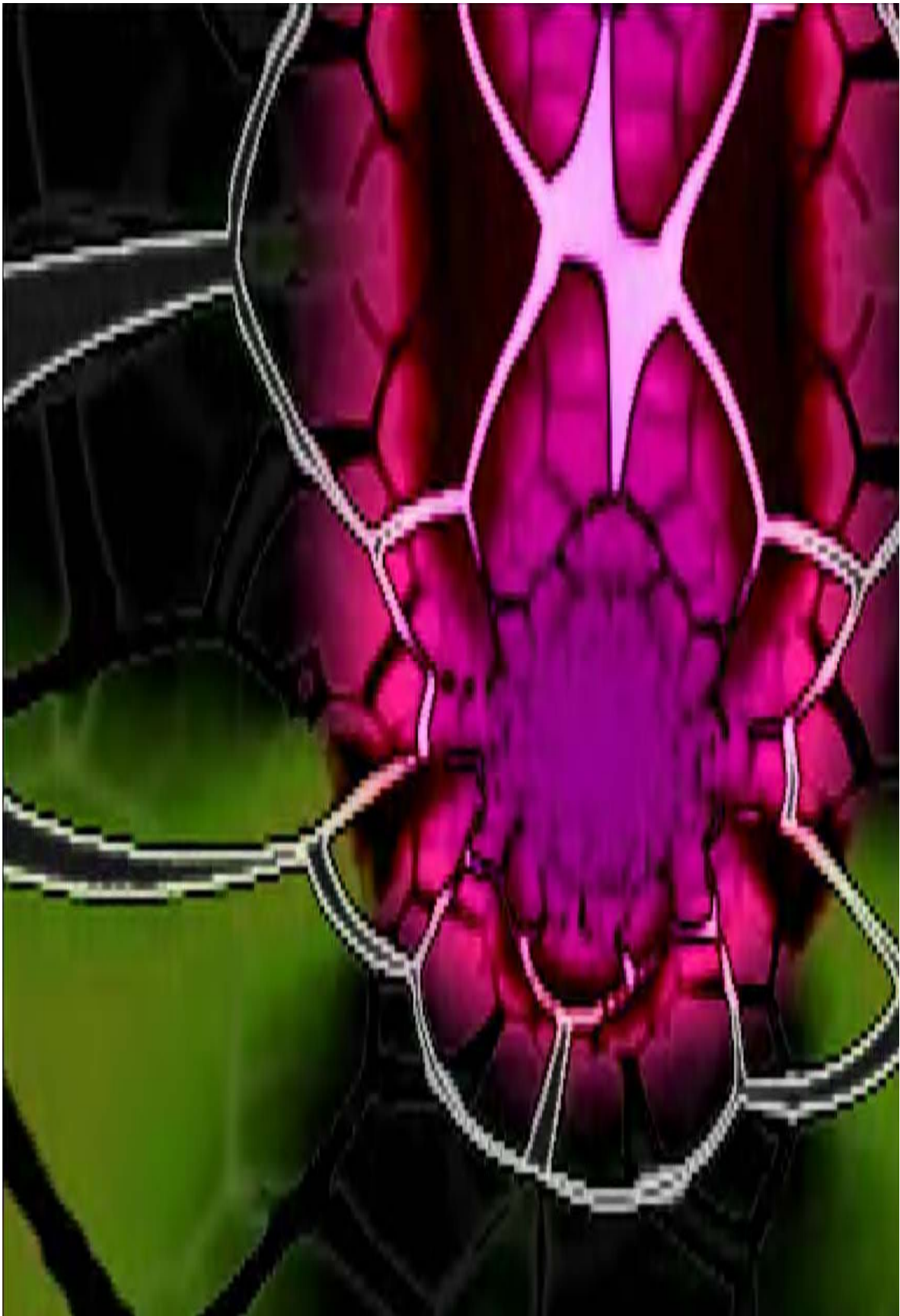








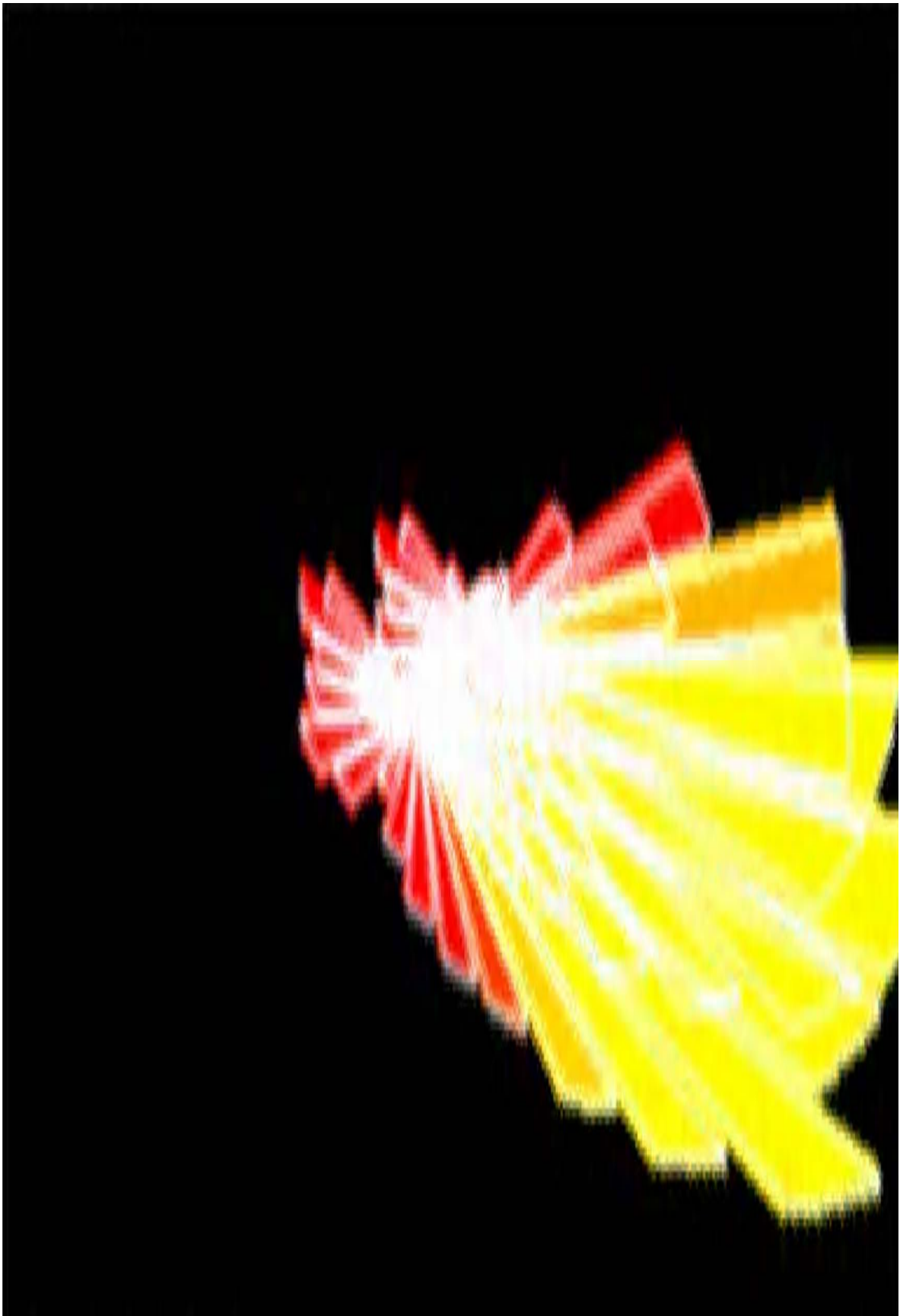


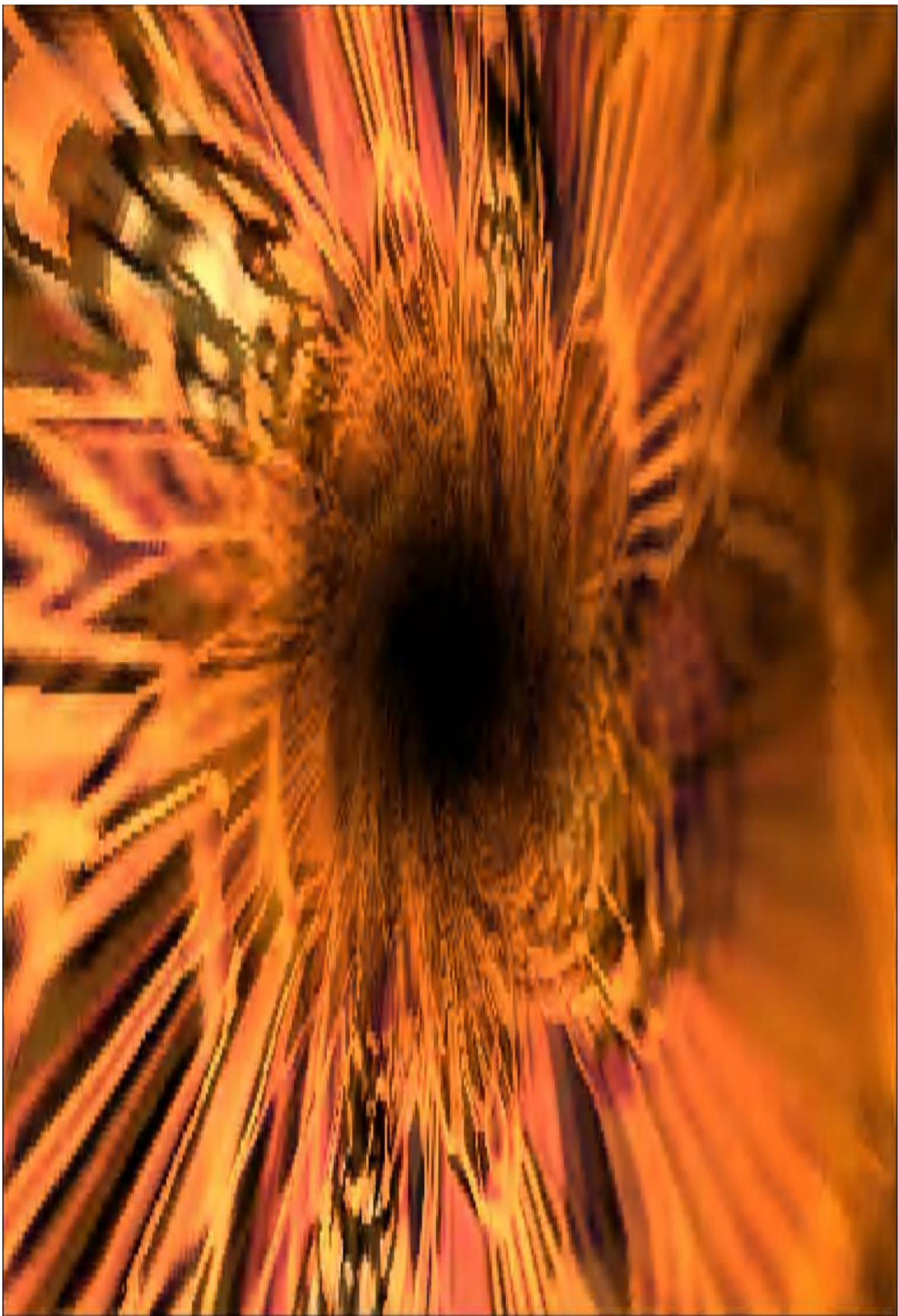




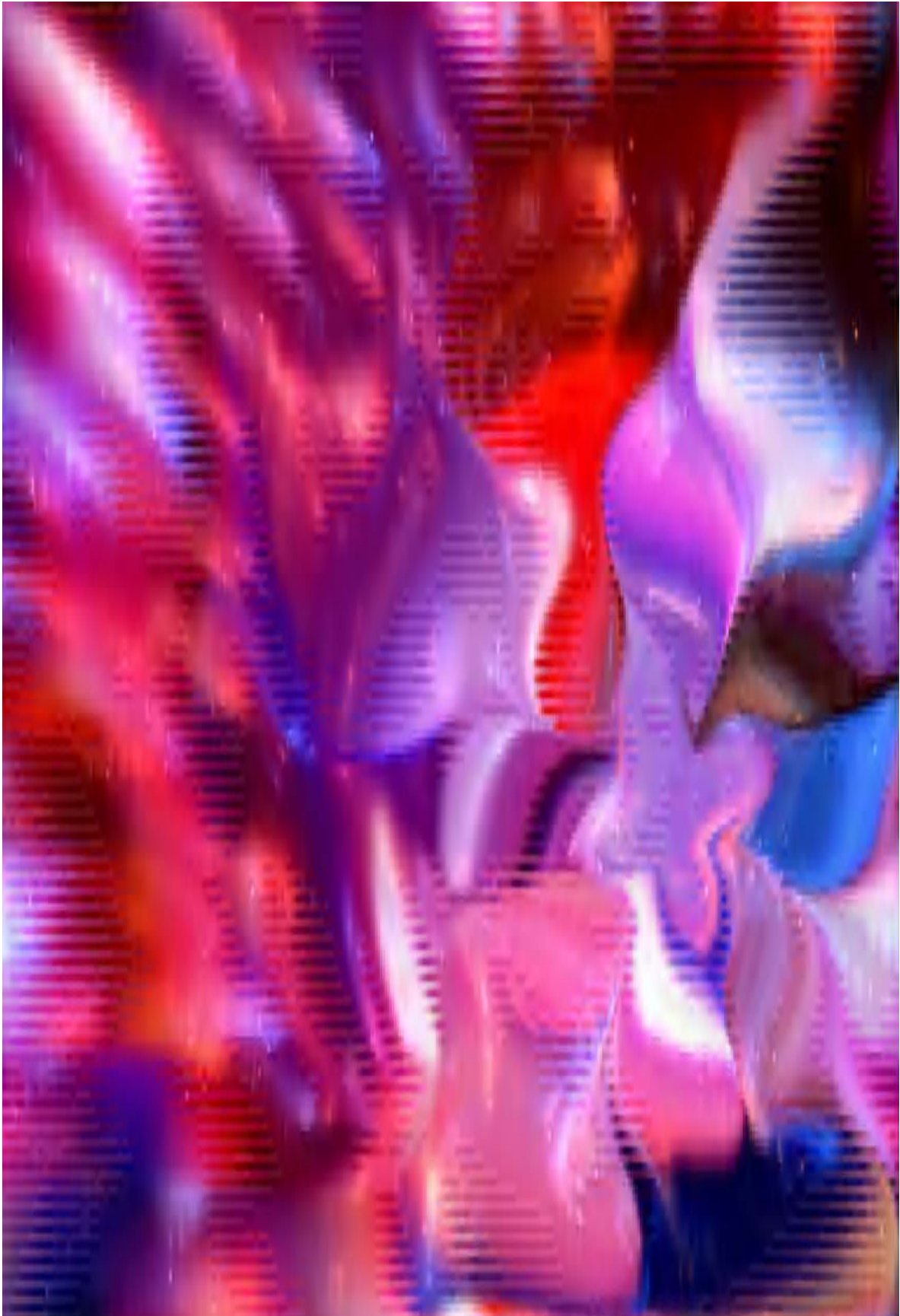






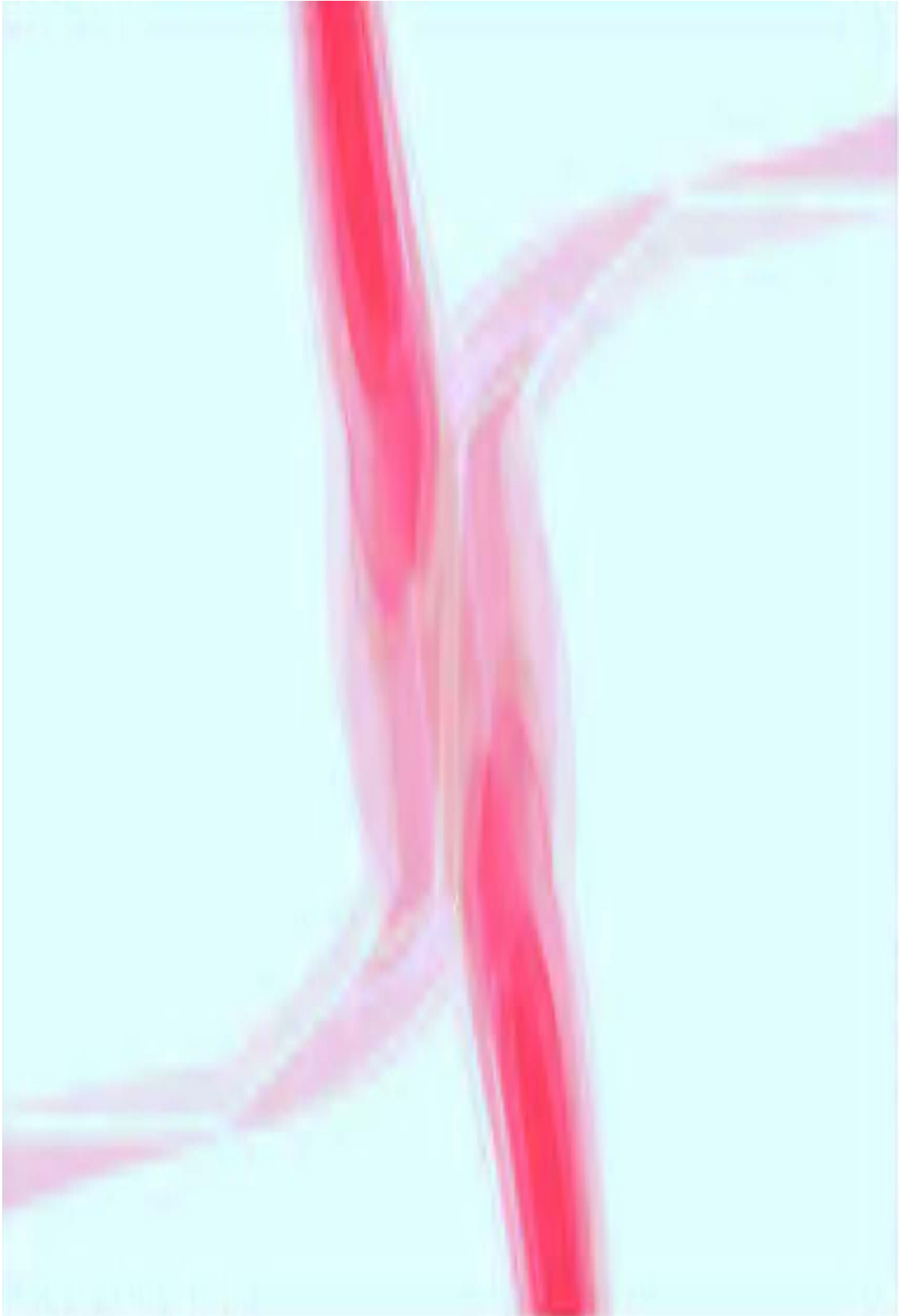






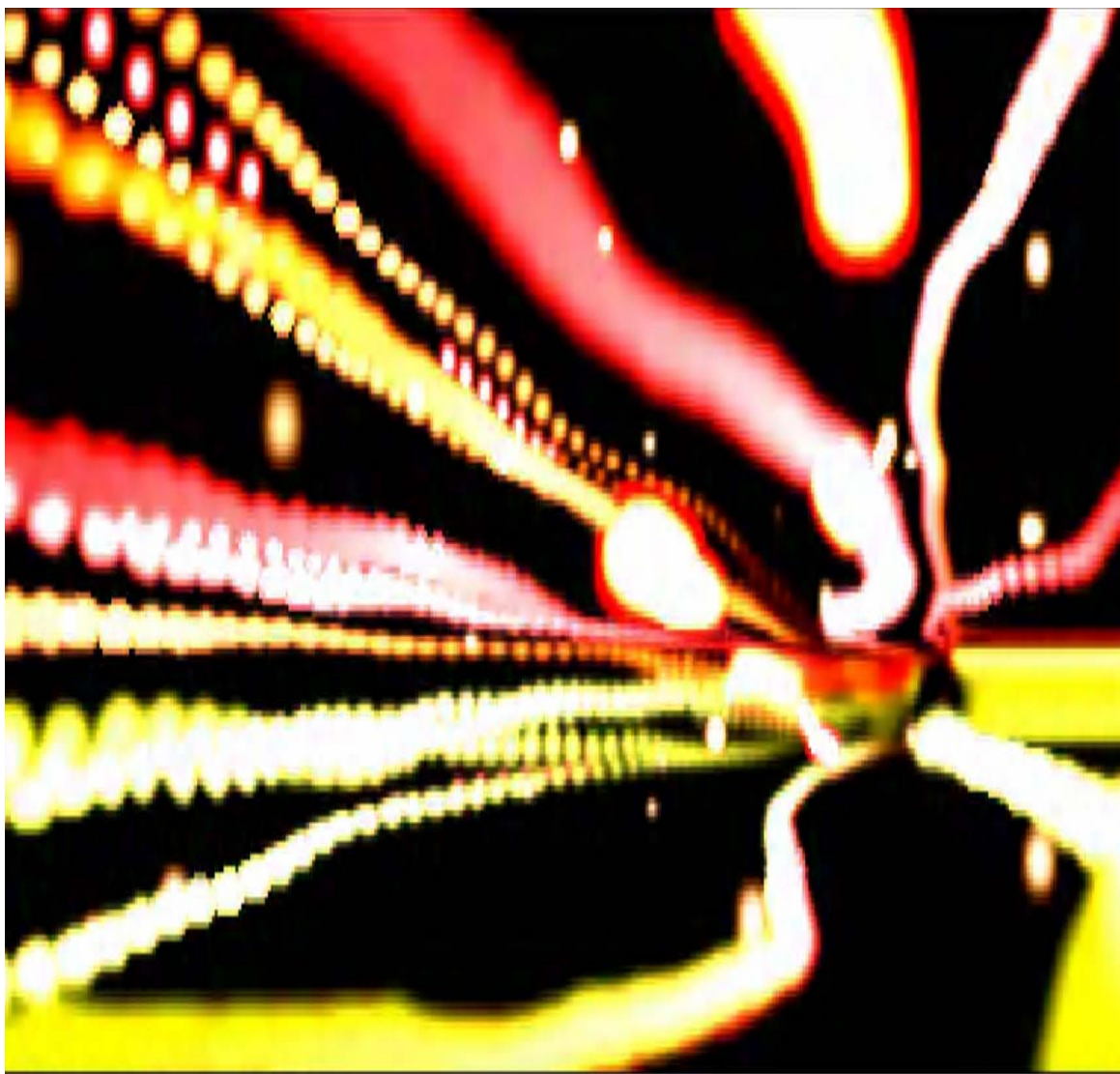




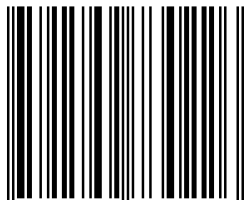


These images are part of a series of about 100 cyberart creations representing the unimaginable *little word of physics particles, anti-particles, un-particles* that compose the matter, anti-matter, and un-matter.

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